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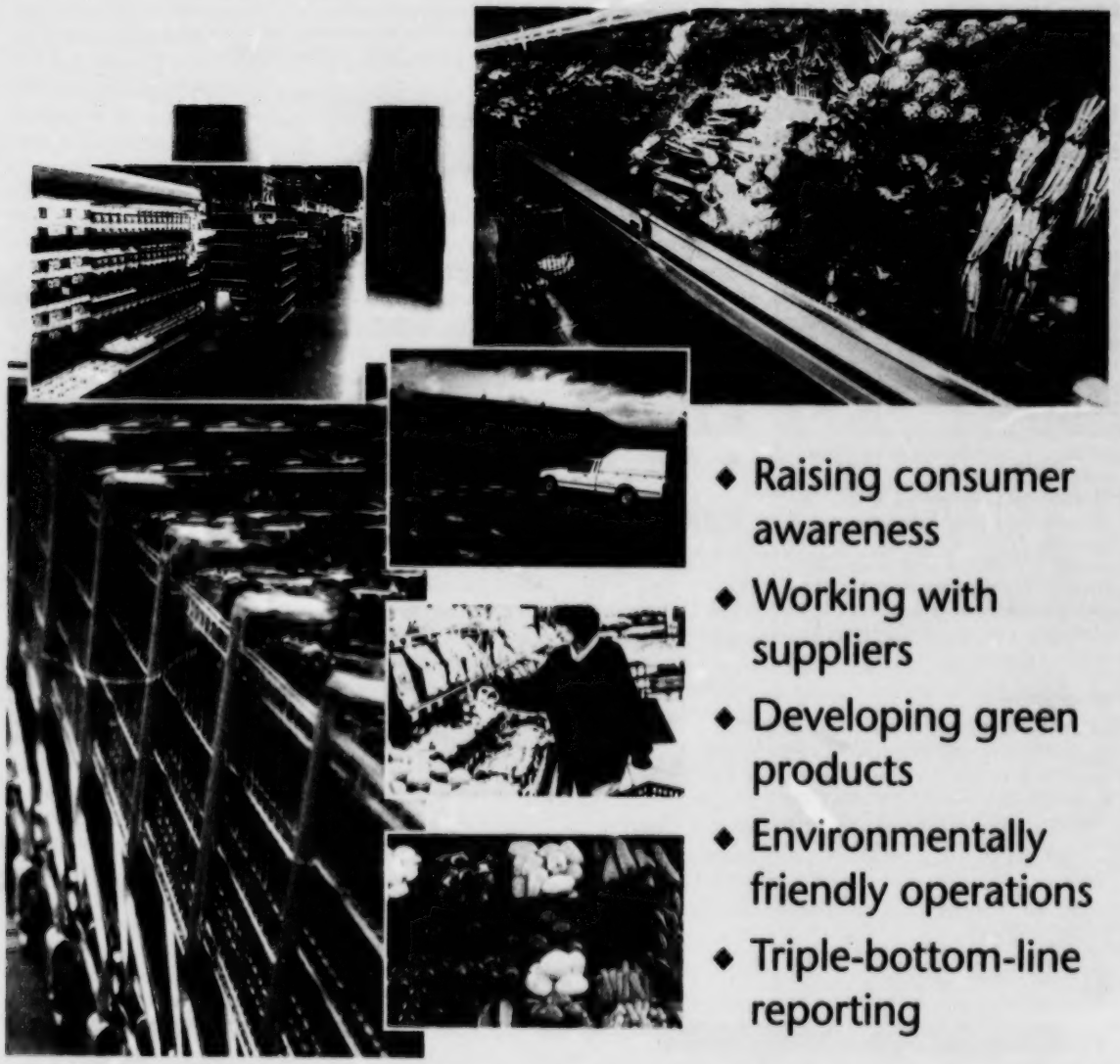
Shopping for a better world: sustainability and retailing



- Raising consumer awareness
- Working with suppliers
- Developing green products
- Environmentally friendly operations
- Triple-bottom-line reporting

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Shopping for a better world

The title of this issue of *Industry and Environment* implies a question: how can consumers – that is, all of us – be encouraged to consume more sustainably? The retail industry, the focus of this issue, has many of the keys to answering that question.

At the World Summit on Sustainable Development in Johannesburg last year, governments urged active work to speed the shift to sustainable production and consumption. They noted that while all countries must be involved in this effort, the developed countries should take the lead. In February, at UNEP's Governing Council meeting, ministers voted to strengthen work on sustainable consumption, promote design of sustainable products and services, reinforce voluntary work with business sectors, and increase support for awareness-raising campaigns.

UNEP is also working through the UNEP-SETAC Life Cycle Initiative – and an exciting new project to enhance the image of green lifestyles – to increase the availability and impact of information in this area.

As part of the effort to promote more sustainable production and consumption, UNEP has stepped up its activities with the retail sector, whose role lies particularly in helping change consumption patterns.

To realize the importance of this sector, just think about your last retail transaction. It may have involved something as small and simple as a cotton T-shirt or a packet of ground coffee. Or perhaps it was a major purchase – a leather-and-wood armchair or a refrigerator-freezer. We do not ordinarily stop to consider the multitude of environmental and social effects that a single, seemingly simple transaction can have. For instance:

- resource use – from metal extraction to consumption of water and wood (the latter possibly involving unsustainable forestry);
- energy use – by your car if you drove to the store where the purchase was made; by the store itself, any vehicles involved in delivering products to the store, and employees' personal vehicles; by wholesalers; and by the furniture assembler, leather producer, animal breeder, wood cutter, fabric mill, coffee packager, and so on. And don't forget the CO_2 emissions connected with all that energy consumption;
- waste generation – any packaging you throw away when you get home is just the tail end of a long stream that begins in the mine, the coffee grove, the farmyard or the forest;
- negative land use effects – e.g. damage to the landscape from suburban megastores and surface sealing by their huge parking lots;
- possibly, dubious labour standards at the store or farther up the supply chain;
- the risk of health effects for you and your family, as well as store and supplier employees, if the use of hazardous substances (e.g. arsenic in wood treatment, heavy metals in appliance manufacture) is involved.

How can we be expected to know such things? Well, in some cases retailers and even the Web sites we use – functioning as the contact point between consumers and those who produce goods – are trying to supply such information.

In recent years a few companies in the retail sector have not only started to green their own operations but also to become important players in global efforts to make consumption and production patterns more sustainable. They are taking action: developing logistical strategies for transport, making life-cycle assessments of packaging, adopting environmental management systems, marketing green products, ensuring that sustainability is taken into account in supply chain management, drawing up codes of conduct for suppliers, carrying out consumer and employee awareness-raising campaigns, demanding innovation in building design and energy systems.

The companies carrying out these and other activities that fall under the rubric of corporate environmental and social responsibility are finding that such efforts bring benefits. And some major retailers are encouraging and even participating in the development of robust, widely applicable indicators of corporate responsibility and accountability.

UNEP DTIE recently hosted an informal meeting of the retail industry on sustainable development in Paris. Its aims: to give retail companies a platform for dialogue on sustainable development in general and sustainable consumption in particular; and to identify sustainability activities in the sector and allow retailers to tell us and others about their experiences. Ten international retailers and associations were represented – a diverse group involved in food, clothing and other types of retailing. It is hoped that a UNEP-sponsored voluntary initiative can be developed in this sector, giving retailers a chance to decide cooperatively on actions to take.

Many of the articles in this issue of *Industry and Environment* were written by participants in that meeting. These articles underline the role of retailers in influencing producers, suppliers and customers. They also present the business case for sustainability in the sector, and prove that accountability is more than paperwork. ◆

To our readers

This is the last issue of *Industry and Environment* to carry my name as Director of the review. I have reached retirement age and so am leaving my functions as UNEP Assistant Executive Director and Director of the Division of Technology, Industry and Economics. I am very proud to have led this important part of DTIE's work, sharing information and best practices from around the world. I would like to take this opportunity to thank all contributors to the review for agreeing to share their experiences and viewpoints, as well as the editorial staff for its dedication, without which the review would not be possible. I hope *Industry and Environment* has been of help to all of you in your professional lives, and I wish all the best to *I&E* under the leadership of my successor. I will certainly remain a reader myself!

Noïni de Lavelaye

Shopping for a better world: facts and figures

The retail trade may be defined as the selling of individual units or small lots directly to multiple customers (usually the ultimate consumers of the goods) by businesses established for that purpose. From its ancient beginnings, with the world's first peddlers and marketplaces, global retailing has grown into a huge industry with annual sales of roughly US$ 7 trillion (**Figure 1**). For comparison, world GDP is around US$ 30 trillion.

This sector is as amorphous as it is enormous, ranging from Wal-Mart, the world's biggest retailer, with over 1.3 million employees worldwide (255,000 of them outside the United States) and turnover in 2001 of US$ 218 billion, to the invisible armies of direct-salespeople and innumerable tiny mom-and-pop stores, not to mention vending machines.

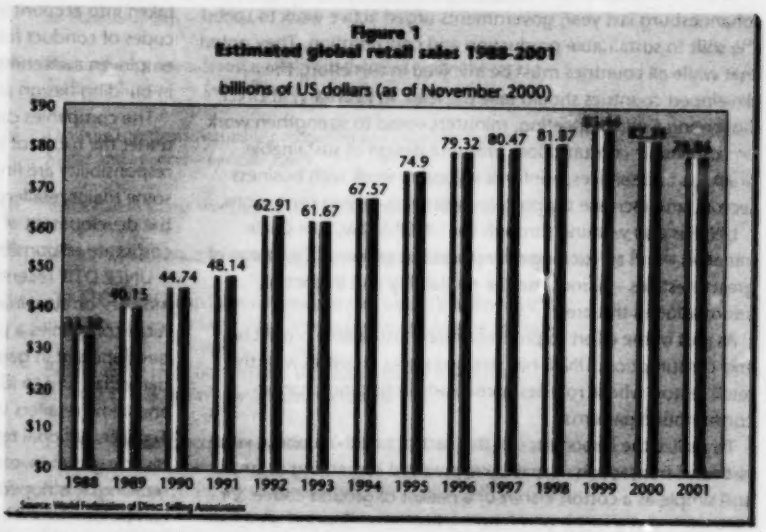
By broad definition, the sector also includes major manufacturers that sell directly to end-customers via retail outlets (often franchised, like car dealerships) and over the Internet. This type of sales represents a growing trend. To further cloud the issue, retailers are selling more services, such as dry cleaning, manicures and vouchers for participant sports.

The world's 200 largest retailers account for 30% of worldwide demand.[1] They are the most visible and comprehensible part of an otherwise hard-to-define sector. When it comes to the three main aspects of sustainability, these chains of department stores, discount stores, super- and hypermarkets, convenience stores and the like arguably account for most of the industry's economic and environmental impact if not most of its social dimension (**Table 1**).

Retailing is a highly competitive sector. Aside from prices, the main forms of competition in retailing include:

- location;
- selection of merchandise;
- how the merchandise is displayed;
- attractiveness of the store or other outlet;
- intangibles such as reputation.

Figure 1
Estimated global retail sales 1988-2001



Ever since the 1999 Millennium Poll on Corporate Social Responsibility (which reported that a majority of 25,000 people interviewed in 23 countries wanted companies in general to contribute to society beyond making a profit) it has been clear that "reputation" includes CSR. Of more specific interest to the retail trade is the 2001 Cone/Roper Corporate Citizenship Study finding that some 76% of American consumers would take a firm's reputation into consideration when buying holiday gifts and 81% would be likely to switch brands to support a cause if items were of comparable quality and price. Moreover, in a 2002 study for the French Economy, Finance and Industry Ministry some 38% of consumers said they take producers' corporate citizenship commitments into account when shopping.

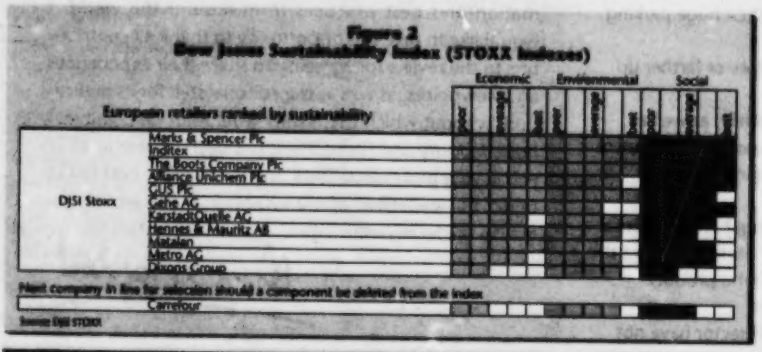
Many retailers worldwide voluntarily report on their economic, environmental and social policies, practices and performance. The Global Reporting Initiative's web site lists seven of them (*http://globalreporting.org/GRIGuidelines/Reporters.htm*). Besides Ireland's Musgrave Group, which thus far is the only retailer reporting "in accordance" with the GRI Guidelines (see article, page 28), the seven companies include Ito Yokado, Kesko and Safeway UK, all of which participated in a UNEP DTIE meeting of retailers in late 2001 and are the subject of articles in this issue of *Industry and Environment*.

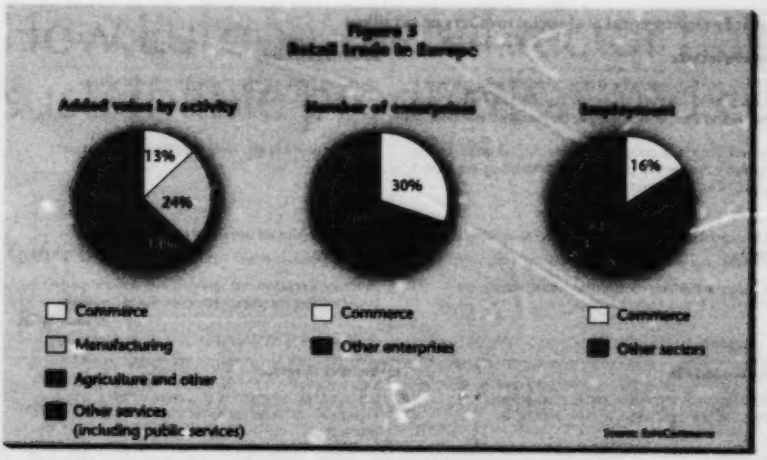
Four more retailers are members of the corporate responsibility network CSR Europe (see *www.csreurope.org*). At least 14 others are members of the US-based Business for Social Responsibility (see *www.bsr.org*).

The challenge of sustainable retailing is twofold: to ensure that internal operations are sustainable, and to influence suppliers to produce sustainably and customers to consume sustainably (**Figure 2**).

Retailing is a volatile sector in which consumer behaviour can be affected by everything from weather to fear of terrorism. In general, however, retail sales are driven by ability to pay (disposable income) and willingness to buy (consumer confidence). While the latter frequently defeats the best attempts of economists to pin it down, the former has been increasing worldwide: the total amount spent on household consumption rose by 68%

Figure 2
Dow Jones Sustainability Index (STOXX Indexes)





between 1980 and 1998. For the sake of context, world economic output more than doubled over the 25 years to 1999 and, according to World Bank calculations, the world population is 78% poor, 11% middle income and 11% rich.[2]

The 1998 UNDP Human Development Report, which points to the fact that global spending on advertising (including in developing countries) is growing more rapidly than the world economy, suggests that the retail sector is becoming a major player in the development process.

Retailing in the regions

Consumer spending in the United States is around US$ 6.6 trillion a year, accounting for some two-thirds of the US$ 10 trillion in GDP. About 40% of consumer spending, or US$ 3 trillion, is on discretionary products and services.[2]

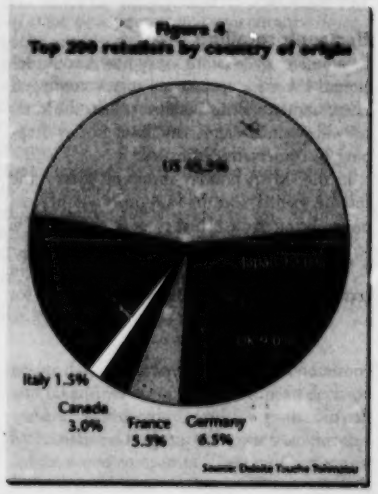
According to the William M. Mercer report, a typical cashier in the United States makes around US$7 an hour and, in 2000, the personnel turnover rate among part-type cashiers in US retailing was over 100% – the highest in the sector.

A Plunkett Research report on US consumer spending in 2001-02 indicates that factors boosting spending included a high rate of personal expenditure, low interest rates, low unemployment and very low inflation. Factors restraining retail sales included weakening consumer confidence, slowly increasing unemployment, increasing numbers of store closures, decreasing levels of consumer household wealth (due to recent huge losses in stock portfolios and 401k retirement plans), record high debt levels (with customers defaulting on credit card balances at an alarming rate) and global market volatility. In addition, with significant layoffs continuing at larger corporations, job migration was increasing and more consumers were taking temporary jobs. The net result has been fewer customers, although those who are buying are spending more per transaction.

Retail turnover in the European Union in 2001 was almost 2 trillion euros; the trend in this sector is above average growth. The retail trade in Europe comprises an estimated 3 million to 4.7 million companies (depending on definition) and employs 13 million to 22.5 million people, at least 15% of the total EU workforce (**Figure 3**).

In much of the developing world, especially Asia and Latin America, the market is increasingly dominated by multinational retailers. In China, for instance, *People's Daily* recently reported that Carrefour of France has 28 hypermarkets and is currently in 16 major cities, while Wal-Mart operates 16 branches in China and Germany's Metro has 15 Cash & Carry hypermarkets. It also reported that interregional mergers of Chinese retailers were increasingly common. Wal-Mart recently acquired a 37.8% stake in Seiyu, a Japanese supermarket operator. B&Q Taiwan, a British-Taiwan joint venture, has an estimated 36% of Taiwan's home improvement market and plans to add two megastores to the 16 already there.

In Hong Kong and Singapore, by contrast, retailing is in the hands of a few dominant local chains, according to JSA, an Australian consultancy (which adds that there a similar situation exists in Australia). In Thailand and elsewhere in southeast Asia, says JSA, a different trade pattern is emerging, with hypermarkets replacing supermarkets as the primary retail offering and the "players" being the British, US, French and Dutch giants.



For example, Retail Asia Online reported in December 2002 that Carrefour planned to add three or four hypermarkets to the ten it already has in Indonesia, where its main rival is a local chain, PT Hero Supermarket.

A similar situation prevails in much of Latin America and Africa. *Latin Trade* magazine reported in January 2003 that Carrefour is strong in Brazil. Wal-Mart de México is Latin America's fourth-largest publicly traded company.

According to *Business Week*, Wal-Mart has 579 grocery stores, wholesale-club outlets and restaurants in Mexico and is spending around US$ 600 million to open 63 new stores in that country by the middle of this year. The US giant has half of all supermarket sales in Mexico.

On the other hand, *Latin Trade* reports that Argentinian retailers who sold out to foreign companies in the boom years are buying back their shops at fire-sale prices now that the country's economy is in trouble.

In Africa the retail sector is dominated by South African industry. For example, the Pick 'n Pay (see page 23) and Pepkor groups not only have operations in many southern African countries but have also expanded into Australia. The global industry leaders have a strong presence in Africa as well, with the French Auchan in Angola and Casino in Tunisia, and Carrefour in Madagascar, Mauritius and Morocco (Auchan and Germany's Metro also operate in Morocco), to give some examples.

Among the world's top 200 retailers, few are from outside of North America, Europe and Japan (**Figure 4**). Australia, Brazil, China (Hong Kong), South Africa, South Korea and Mexico are represented, but with at most a handful each.

The spread of high-volume multinationals can have a number of implications for sustainability. Wal-Mart is known for its aggressive stance against organized labour. Reuse of glass and plastic bottles often falls off noticeably when foreign-owned supermarkets and hypermarkets take over markets formerly dominated by small, family-owned grocery stores, as noted by the Institute for Local Self-Reliance in Washington, D.C.

Social issues

The International Labour Organization (ILO) points out that while retailing is increasingly a source of job creation worldwide, there are some disturbing trends. These include a large proportion of women in low-status, low-paid jobs; high turnover rates; and a high proportion of workers in short-term or part-time jobs. The ILO also notes that the retail trades are among the least unionized in many countries.

Pay levels vary quite widely across the sector and within given companies. Human resource consultancy William M. Mercer reports that while the managers of a grocery store and a gas station/convenience store may have similar job descriptions, median total cash compensation (base salary plus annual incentive) for the former is US$ 71,000, against US$ 33,800 for the latter. Pay variations are due partly to varying job scopes and partly to

Table 1: Environmental and social impacts of retailing

Direct impacts from	Solutions include	Benefits to retailer
Transport (energy use, CO_2 emissions*)	Backhauling/return logistics and other logistical solutions (e.g. delivery pooling systems), local sourcing, alternate-fuel vehicles, use of rail and ships, encouraging employee carpools and the like	Lower fuel costs, savings on equipment and salaries
Packaging (waste)	Take-back, recyclable materials, reusable distribution packaging, integrated management, packaging guidelines (e.g. see Table 2, page 22), life-cycle assessment.	Increased ability to anticipate regulations, reduced costs
Property and operations (consumption of energy, water and materials, CO_2 emissions*)	Environmental management systems, environmentally sound technology	Lower costs (also see benefits of solutions related to appearance).
Appearance (landscape impairment from "big box" stores: typically 50,000 to 200,000 square feet of floor space in windowless single-storey buildings with huge parking lots and no-frills site development)	Eco-design, sustainable construction, eco-refurbishment	Flexibility, long-term cost savings (lower operating expenses), better working conditions, attractiveness to customers
Indirect impacts involving	**Solutions include**	**Benefits to retailer**
Supply chain (raw material use, production methods, labour standards, animal welfare, effects on biodiversity)	Guidelines, codes of conduct, certification, independent monitoring, standardization, working with NGOs	Improved risk management (e.g. reduced risk of supply disruption), increased consumer and employee confidence in products
Consumers (what they buy, how they use it)	Awareness-raising (making information easy to get and to understand), employee training, product development (including environment-friendly after-sales care), customer surveys, market research, communications strategy (including advertising and public relations)	Brand differentiation (i.e. customer perception of genuine choice; perception of given brands – those of the retailer, in this case – being preferable to others), customer trust
Employees (job satisfaction, involvement with community)	Training, contact with schools, internal communications (including intranet)	Higher employee loyalty, lower staff turnover and related training costs, improved customer relations

Other solutions, applicable generally	General benefits
Integrating environmental considerations in all decision making	Improving image
Promoting life-cycle thinking and a life-cycle economy	Reassuring investors
Applying precautionary approaches	
Ensuring environmental compliance and enforcement	
Reporting in a verifiable way to shareholders, employees, customers	
Engaging in stakeholder dialogue (e.g. with chemical industry, energy sector)	
Making sure top management is involved	

* I.e. the activity is more CO_2 intensive than others (all activities involve "embedded" CO_2 emissions)

differing pay practices among industry segments.

A recent US online survey by CareerBuilder, a placement firm, showed that 36% of retail workers were dissatisfied, compared with 29% of workers in areas such as health services, manufacturing, information technology and banking or in government.

Consumer expectations and behaviour

Consumers are becoming more purposeful in their buying behaviour, as reported by Ernst & Young in 2001. This has probably had an influence on another change in the retail industry: a drop in the number of casual shoppers in department stores and malls.

Social issues are attracting growing consumer interest, judging by the fact that socially screened assets under professional management grew by 36% in the period 1999-2001 while total US-managed investment assets grew by 22%.

The US-based International ss Retail Association reports in its latest holiday spending survey that, for the first time since the survey began in 1996, women spent more than men. The biggest spenders by age were in the 25-34 group.

Electronic retailing

E-commerce or "e-tailing" may now account for around 1% of European retail sales, according to Eurocommerce. British analysts predict the Internet will eventually represent 5% of grocery shopping, by conservative estimates.[4]

In the IMRA holiday shopping survey, the Internet gained more than any other type of retail outlet, being named "best place to shop" by 7% (compared with 4% in 2001).

The developing world is catching up fast in terms of electronic commerce. In Brazil, for instance, *Business News Americas* reports that online retail sales reached US$ 134 million in October. The Brazilian research firm E-Consulting says online sales were up 7.3% the month before. Brazil is the regional leader in this area: online shopping represented 3.28% all retail sales in that country in September and were expected to reach BRL 1 billion for the year.

Notes

1. Deloite Touche Tohmatsu for *Stores* magazine, National Retail Federation, January 2003 (*www.stores.org*).
2. *Tomorrow's Markets: Global Trends and Their Implications for Business*, WRI/UNEP/WBCSD, 2002.
3. *http://retailindustry.about.com.*
4. *The Economist*, 23 November 2002.

◆

How Europe's retail sector helps promote sustainable production and consumption

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Summary

Retailers' main role is to respond to consumer demand and to offer a range of products. As they are the link between manufacturers and consumers, retailers communicate consumer demand upstream to suppliers and deliver products and services downstream to their customers. They can greatly influence changes in production processes and consumption patterns, and are well positioned to exert pressure on producers in favour of more sustainable consumer choices. Many retailers understand the importance of sustainable development strategies and have taken steps to satisfy latent demand for "green" products. One instrument supporting sustainable development strategies is corporate social responsibility (CSR). While the CSR concept remains ill-defined, it is concerned with promoting company actions beyond basic legislative requirements. EuroCommerce has established a working group on CSR issues. This group helps ensure proactive representation of the retail sector, particularly in the newly established European Multistakeholder Forum created by the EC in 2002. EuroCommerce was also one of the initiators of the Efficient Consumer Response (ECR) movement.

Résumé

Le rôle principal du commerce de détail est de répondre à la demande des consommateurs et de leur offrir une variété de produits. Parce qu'ils sont le lien entre fabricants et consommateurs, les détaillants transmettent en amont aux fournisseurs la demande des consommateurs et fournissent en aval à leurs clients divers produits et services. Ils peuvent influer considérablement sur l'évolution des procédés de production et des modes de consommation et sont bien placés pour faire pression sur les producteurs pour qu'ils privilégient les choix de consommation plus durables. Conscients de l'importance des stratégies de développement durable, beaucoup de détaillants ont pris des dispositions pour satisfaire une demande latente pour des produits « verts ». L'un des principes qui sous-tendent les stratégies de développement durable est la responsabilité sociale des entreprises. Bien que le concept soit encore mal défini, il vise à encourager les entreprises à aller au-delà des exigences légales de base. EuroCommerce a constitué un groupe de travail sur les questions de responsabilité sociale des entreprises qui assure une représentation active du commerce de détail, notamment au sein du nouveau European Multistakeholder Forum créé en 2002 par la Commission européenne. EuroCommerce a également été l'un des instigateurs du mouvement ROC (réponse optimale au consommateur).

Resumen

La función principal que cumplen los minoristas es de satisfacer las necesidades del consumidor y ofrecer una gama de productos. Como éstos son el vínculo entre los productores y los consumidores, los minoristas comunican la demanda de los consumidores a los proveedores y proveen productos y servicios a sus clientes. Pueden influir de sobremanera en los cambios de los procesos de producción y en las características del consumo, y están en una posición privilegiada para presionar a los productores en aras de un apoyo más sostenible a los deseos de los consumidores. Muchos minoristas han comprendido la importancia de las estrategias de desarrollo sostenible y han adoptado medidas para satisfacer la demanda latente de productos ecológicos. Un instrumento de apoyo a las estrategias de desarrollo sostenible es la corporate social responsability (CSR) (Responsabilidad Social Empresarial). Si bien el concepto de CSR no ha sido suficientemente definido, su fin es de fomentar las acciones de la compañía excediendo las prescripciones legislativas básicas. EuroCommerce ha constituido un grupo de trabajo sobre cuestiones relativas al CSR. Este grupo colabora para garantizar una representación anticipadora y prospectiva en el sector minorista, particularmente en el recientemente establecido European Multistakeholder Forum, creado por la Comunidad Europea en 2002. EuroCommerce fue también uno de los iniciadores del movimiento Efficient Consumer Response – ECR, (Respuesta Eficaz del Consumidor).

EuroCommerce is a federation representing the wholesale, international trade and retail trade sectors to the European Union. We represent trade federations and individual companies in 24 countries. Our mission is to promote and defend the interests of the retail sector, and to ensure that its characteristics are well understood and taken into account by European decision makers. The federation's work is organized in policy committees made up of experts from member federations or companies. There are Committees for each policy area of relevance. Their role is to prepare the sector's position on various issues, and to serve as a platform for exchanges of views among members.

Commerce generates 13% of the EU's value added, represents 4.7 million companies and provides jobs for over 22 million people. As a link between manufacturers and consumers, it also plays a particular role in society and (in the context of the sustainable development strategy) in promoting sustainable consumption and production patterns.

The concept of sustainable development, to which the international community signed up at the UN Conference on Environment and Development (UNCED) in 1992, is based on economic, social and environmental objectives. Within the EU, pursuing these objectives has resulted in the adoption of a sustainable development strategy and a concerted effort to integrate economic, environmental and social concerns across all policy areas. This article sets out in broad terms what retailers can do and the limits to their actions.

As a preliminary remark, it is important not to lose sight of the fact that a fair balance has to be reached between the three pillars underlying the sustainable development strategy: economic, social and environmental. One lesson learned from experience over the past few years is that economic growth and enterprise development are prerequisites for improving social and environmental conditions. It is a mistake to impose increasingly stringent criteria on enterprises if they are not in a position to make the necessary investments, or if voluntary processes would achieve a better outcome than regulation.

A second remark is that technological development, driven by environmental legislation or by market forces, has resulted in a sharp reduction in pollution per unit produced. Therefore, measures intended to influence production and consumption patterns also need to address the consumption side of sustainable development.

The retail sector, through its role in society and as a go-between for consumers and manufacturers, is one of the stakeholders promoting sustainable development. A large number of companies have engaged themselves to move in this direction in recent years.

Corporate social responsibility: an instrument to support sustainable development strategies

Corporate Social Responsibility is one of the instruments supporting sustainable development strategies at European level. This concept, though

still ill-defined, is concerned with fostering company actions beyond basic legislative requirements. It encompasses a wide spectrum of issues that could be categorized according to the three pillars of the sustainable development strategy (i.e. economic, social, environmental).

Because of their specific role and activities at local, regional, national or international level, companies (large and small) in this sector have become extremely sensitive to the CRS debate in the past few years.

Given the subject's importance, EuroCommerce set up a working group responsible for CSR issues. It is made up of experts from the EuroCommerce social affairs, environment and international trade committees, so as to reflect the positions of all interested parties. Through this working group EuroCommerce also ensures proactive representation of the retail sector in the debate, particularly in the newly established European Multistakeholder Forum established by the European Commission in 2002. This body is composed of representatives of businesses, employers, NGOs and trade unions, who share their thoughts, efforts and strengths in order to raise awareness of CSR practices in all sectors, improve transparency in communication, and examine the appropriateness of any convergence of CSR tools.

While a number of initiatives and best practices are already in place in the retail sector and will be developed, the sector considers that the following points should be taken into account by legislators:

1. Corporate social responsibility refers to companies' behaviour in carrying out their activities. Any type of initiative in this context could not therefore be regulated. Commonly agreed values might be promoted as drivers to guide this behaviour towards the general objective of sustainable development. Nevertheless, taking up CSR should remain voluntary to avoid creating unnecessary administrative burdens, particularly for SMEs (e.g. compulsory reporting).
2. Successful CSR activities in the environmental or social field have been, are and need to remain business driven. They are usually defined at the company level, in the context of its specific culture and as a solution to the company's specific situation and environment. Imposed solutions would reduce these activities' efficiency, scope and success. The variety of existing initiatives in the environmental area is evidence of this.
3. The role of governments should be to encourage and promote CSR activities by setting up platforms for exchanging best practices or incentives to help companies take up CSR activities, while at the same time showing willingness to foster competitiveness.
4. Governments and institutions need to be consistent in their policy making to avoid legal uncertainty or imposition of inconsistent, ill-targeted or unnecessary administrative burdens on companies, particularly SMEs.
5. CSR is a concept that concerns all actors in society – industry, consumers, citizens, employees and governments – in all parts of the world. The objective is to ensure a better quality of life for everyone, today and in generations to come, by promoting sustainable production and consumption patterns. This was rightly integrated into the Johannesburg action plan.

To illustrate the retail sector's commitment to voluntary CSR initiatives, as well as the actions it has taken, EuroCommerce (through its CSR working group) will develop a manual of best practices that will eventually be published and distributed to the relevant stakeholders. This work will be complemented by a conference in the autumn of 2003 to exchange views and best practices among actors in the sector.

Retail's role in influencing consumption and production patterns

Companies in the retail sector have realized the importance of the environment, as increasingly reflected in their strategies and daily operations. The main role of the EuroCommerce Environment Committee, which is made up of company and federation environmental experts, is to prepare the sector's position on European environmental draft legislation and to serve as a platform for exchange of views and best practices among its members. The issues debated within this committee include the sustainable development strategy.

By acting as a go-between for consumers and producers, communicating the demands of customers upstream to their suppliers and delivering new products and services downstream to these customers, retailers play a critical role in shaping production processes and consumption patterns. They are well positioned to exert pressure on producers in favour of more sustainable consumer choices. Their main role is to respond to consumer demand; this role is all the more important as it is widely recognized that positive trends are observable in production, while consumption patterns have continued to move in a way that continues to threaten sustainable development.

Awareness is growing among consumers, who increasingly express the need to better take into account the environment and ethical concerns. However, today this trend is still not totally reflected in their purchasing patterns and purchases of "ethical" or "green" products remain low.

The basic role of the retail sector is to *anticipate* consumer demand and identify the trends lying behind millions of separate consumer decisions every day, so as to offer consumers a product choice that will meet their expectations. In this context, commerce has a role to play in promoting sustainable consumption patterns in *responding to this latent demand for green products and offering consumers a choice.*

In responding to latent demand, the retail sector can also serve as an *educator, providing information and analysis* to help customers make their choices, but within certain limits.

In the area of promoting "green" or "eco-efficient" products, eco-labels play a special role. They serve as certification that the product and manufacturing process meet a number of ecological criteria. In some European countries programmes such as the Scandinavian Nordic Swan or the German Blue Angel have proven extremely effective. On the other hand, the European eco-labelling scheme has not yet taken off. It is perceived as costly and burdensome, particularly for SMEs, and consumers do not understand it. Therefore, as experience shows, to be successful eco-labels must also be fully understood by consumers.

Another example of retailers' initiative to influence consumer choice is to restrict the product range to products meeting certain ecological criteria. For example, a consumer electronics retailer may influence consumer patterns by opting to sell A-class refrigerators, which respond to tougher environmental criteria than those in classes B or C. Nevertheless, such actions have been possible as long as the consumer is willing to pay a premium for an A-class fridge.

Still another example is the possibility for retailers to refuse to sell certain products that are not environmentally sound, or that undermine specific natural resources, as a response to consumer action or as a company policy. Some companies have based successful strategies on selling only products that respond to certain environmental criteria. However, again there is a limit to retailers' ability to determine consumption trends: consumer demand and commerce should not be held responsible for selling products that are not environmentally sound. The retail sector could, for example, refuse to sell a particular type of fish or require that the nets used be a particular size. But is it really up to this sector to ensure the sustainability of marine resources?

Retailers can propose, even partly influence consumer choices, but success will only come through *educated consumer demand.* In addition, it is in the hands of governments to take the decision whether to allow certain products to be placed on the market. Actions taken by companies to promote sustainable development have a cost (monitoring, investment in less polluting technologies, etc.) which, one way or another, is passed on to consumers. The consumers' understanding and willingness to pay a premium and support such investments is therefore a prerequisite to their implementation. Their success depends on coordinated action encouraged by public authorities.

Enhancing sustainable production patterns and retailers' sustainable development strategies

Retailers play a crucial role upstream in the production chain. The nature of their role depends on whether they sell only their own brand, like IKEA for instance, or sell a mix of own-brand and branded products.

In the case of own-brand products, retailers define their own terms of reference and are accountable on more or less the same level as producers. Adopting a greener approach is part of a global business strategy. In response to the latest food scares and the need to restore consumer confidence in food products, a number of retailers have used organic production channels. These are based on stringent ecological criteria for pesticides, water consumption, heavy metals, etc.

Development of such products requires intense efforts by both retailers and farmers to satisfy these terms of reference and ensure adequate control of the whole chain. In some cases tension has been generated between retailers and their suppliers (essentially SMEs), which have been forced to take risks and make heavy investments to respond to the retailer's requirements.

Overall, retailers have understood the importance of engaging in sustainable strategies, as shown by the numerous examples of initiatives they have undertaken to address environmental and ethical concerns – not only as a forced response, but often as a voluntary step. These include reducing stores' energy consumption and, to the extent possible, packaging for transport; ensuring forest protection; looking for local supplies; offering customers greener alternatives to plastic bags (e.g. "smart" corrugated boxes, reusables and recylable bags); and voluntary take-back schemes in stores or at delivery points. Examples of such initiatives include:

Energy efficiency in buildings
Large retailers try to integrate the latest technology when they build their stores in order to save energy. They improve the building management system and study the use of renewable energy. They also put in place systems to save energy used by refrigerators and electricity used for lighting.

Energy efficiency in household appliances
The retail sector promotes use of energy labels for refrigerators, dishwashers and other equipment, which have been developed together with the European Commission.

Transport policy
A number of large retailers have developed "travel to work" schemes. They have put in place transport management systems that reduce daily delivery and optimize flow, with a view to reducing CO_2 emissions. Other initiatives include development of service stations offering LPG or increased use of alternative fuels (120 LPG-fuelled vans). They also favour backhauling and use efficient route planning.

Sustainable forest management
Most large retailers are members of the Forest Stewardship Council (FSC) and buy FSC-certified wood based on optimal forestry management. Others are members of a national forestry group linked with the FSC.

Environmental Management Systems (EMS)
Most large retailers favour the ISO 14001 environmental management scheme, and some are already ISO 14001 certified.

Waste management
Large retailers have waste management strategies in place. They exert pressure on their suppliers to reduce packaging waste or to ensure that this waste is reusable or recyclable. They also use recycled material whenever possible. Some have waste management manuals or waste delivery instructions.

Training
Some retailers offer suppliers the opportunity to take part in a specially developed basic training programme for environmental issues or provide environmental management guides to their own-brand suppliers. Customer leaflets are being published to raise awareness of the environmental impacts of home improvements and gardening activities (buying, use and disposal of products). Some retailers train their staff in waste sorting. Some produce sustainability reports.

Another interesting initiative is Efficient Consumer Response (ECR), of which EuroCommerce is a founding member. The ECR movement effectively began in the mid-1990s. It was characterized by the emergence of new principles of collaborative management along the supply chain between producers and retailers. It was understood that companies could serve consumers better, faster and at less cost by working with their trading partners. ECR provides a forum in which retailers and producers are represented on an equal basis. ECR is developing standards aimed at improving supply chain management. These can directly impact transport costs, delivery optimization or packaging waste (e.g. through the development of common standards for reuse, goods assembly, transportation, storage, handling and product protection in the supply chain (using, for instance, pallets, crates, containers for department stores).

ECR works through the development of common projects of interest to retailers and producers. Examples of projects undertaken in this context include accelerating the development and use of efficient replenishment and electronic data interchange (EDI) techniques across European grocery businesses to achieve a critical mass of users in the grocery community. This is achieved by communicating the benefits and potential gains demonstrated by pilot trials. The project's second phase integrated third-party logistics service providers (LSPs) in the replenishment process, with a particular focus on transport.

ECR is an efficient, result-driven example of a joint initiative of producers and retailers.

Conclusion
A number of lessons can be drawn from the various initiatives undertaken in the retail sector to support sustainable consumption and production patterns:

- There is a latent demand for ethical and green products, which today is not always reflected in consumers' purchasing decisions. Producers and retailers should be ready to meet this emerging demand, particularly once it becomes more concrete. The role of the retail sector is primarily to offer educated consumers a choice.
- Retailers can propose or even partly influence consumer choices in favour of greener products, but success will only come through educated consumer demand.
- In their efforts to enable consumer choice, retailers need to insist on open and continuous information from manufacturers on production processes with respect to energy consumption, raw materials use and pollution. Some retailers are already buying mainly from manufacturers that demonstrate a commitment to sustainable development. New supplier codes are being drawn up, setting out processes and product requirements to help manufacturers minimize impacts throughout a product's life cycle. Some supermarkets refuse to stock products they consider environmentally unacceptable. Others have launched an own-brand range of more environmentally sustainable products to capture a niche in an increasingly saturated market.
- Nevertheless, there is a limit to retailers' ability to include environmental concerns in their terms of reference. It is difficult to control the chain and tensions that may arise with existing suppliers. In addition, if terms of reference are too stringent they risk inducing a need to shift away from existing suppliers – in some cases from Third World countries, which are incapable of implementing them, resulting in a negative impact on development.
- There is a limit to individual companies' ability to fix the environmental agenda, and retailers cannot replace government action. For instance, if some marine species are endangered it is not the role of retailers to avoid selling them, but rather that of public authorities to prohibit fishing of these species. There is a time for legislators to assume their responsibilities for authorizing, prohibiting or establishing conditions for the sale of certain types of products and for ensuring proper enforcement through adequate controls.
- The introduction of new production patterns has a cost and should be considered an on-going process. However, if the retail sector, for instance, welcomes voluntary eco-management certification systems such as EMAS and ISO 14001, such schemes can be burdensome and costly, particularly for SMEs. A recent study by the European Commission shows that in Europe half of SMEs are already involved in external socially responsible activities, mainly for ethical reasons but also in view of expected benefits (e.g. through improved customer loyalty).
- Successful strategies are usually business driven. It is up to individual companies to consider the best course of action, given their corporate culture and their structure or environment. Encouraging sustainable production and consumption patterns is also about innovation and creativity. It is an on-going process with a number of objectives. It is like a ladder, and companies decide what step of the ladder they wish to be on.

EuroCommerce shares the view that the concept of sustainable development needs to be a workable objective for everyone in the world, at local, national, regional or international level. Achieving such integration will require *new ways of looking at how we produce, consume, live, get along with each other or make decisions.* In one word, what we set, collectively or individually, as priorities for our children's world.

Retailers and wholesalers are showing their dedication to this process, but they share the responsibility for doing so with other actors including industry, consumers, NGOs and governments. Success will require coordinated worldwide political willingness and action, coordinated consumer education, and acceptance of responsibility by each sector at its own level ◆

Practical steps towards sustainability in the retail trade: the case of Finland's Kesko

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Summary

Kesko is Finland's wholesale and retail market leader. It is one of the world's most advanced trading companies in terms of environmental and social performance and sustainability reporting. Kesko has developed a self-tailored sustainability management system, including information technology, clear performance indicators and transparent reporting. Environmental measures have increased profitability, lowering costs and promoting systematic work and better quality in all the company's activities. Social quality control of the supply chain has further increased Kesko's reputation as a responsible company, with positive impacts on its corporate image. Tenacious work carried out over a decade has led to innovative IT solutions, eco-efficient construction, better corporate profitability, a better corporate image and greater employee satisfaction. Kesko shares its experience through active participation in international cooperative activities, including through UNEP and the various commissions of the International Chamber of Commerce (ICC).

Résumé

Kesko est le numéro un finlandais du commerce de gros et de détail. C'est l'une des entreprises de négoce qui sont allées le plus loin dans l'établissement et la publication de rapports sur leurs performances environnementales et sociales, et dans leurs efforts en faveur du développement durable. Kesko a mis au point un système " maison " de gestion du développement durable qui fait notamment appel aux technologies de l'information, à des indicateurs de performance clairs et à une procédure transparente d'information du public. Les dispositions prises dans le domaine de l'environnement ont permis d'accroître la rentabilité, de réduire les coûts, d'encourager le travail méthodique et d'améliorer la qualité de toutes les activités de l'entreprise. Le contrôle de la qualité sociale de la chaîne d'approvisionnement a permis à Kesko de conforter sa réputation d'entreprise responsable, ce qui a un effet positif sur son image de marque. Le travail obstiné mené pendant dix ans a débouché sur des solutions informatiques innovantes, l'instauration de l'éco-efficacité, une plus grande rentabilité de l'entreprise, une meilleure image de marque et un plus haut niveau de satisfaction du personnel. Kesko partage son expérience en participant activement à des activités internationales de coopération, notamment avec le PNUE et les diverses commissions de la Chambre de commerce internationale.

Resumen

Kesko es el líder comercial del comercio minorista y mayorista de Finlandia. Es una de las compañías comerciales mundiales más avanzadas en lo que atañe a su rendimiento ambiental y social y la sostenibilidad de sus políticas. Kesko ha elaborado un sistema específico de gestión de la sostenibilidad, que incluye la tecnología de la información, la elaboración de indicadores claros del rendimiento y el suministro de informaciones transparentes. Las medidas ambientales han aumentado los márgenes de ganancia, disminuyendo los costos y fomentando un trabajo sistemático y una mejor calidad en todas las actividades de la compañía. El control de la calidad social de la cadena de abastecimiento ha aumentado aún más la reputación de Kesko en tanto que compañía responsable, con repercusiones positivas en su imagen. La labor tenaz llevada a cabo durante una década se ha plasmado en soluciones innovadoras en la tecnología informática, la construcción ecológicamente eficaz, mejorando la rentabilidad de la compañía, lo mismo que la imagen de ésta y aumentando la satisfacción de sus empleados. Kesko comparte su experiencia a través de una participación activa en eventos cooperativos internacionales, dentro de los cuales se incluye el PNUMA y su participación en varias comisiones de la Cámara Internacional del Comercio (CIC).

Kesko Corporation has its roots in the Finnish countryside, where in the early 1900s the most advanced village grocers combined their commercial power and started to buy yeast and sugar together. This cooperation gradually led to four major retailer-owned wholesale companies, which had to merge during the 1939 Winter War. The result of this merger – Kesko – was first owned by retailers only. These "K-retailers", as they began to call themselves, increased their cooperation in the 1960s and 1970s, proceeding from joint purchasing and logistics to acquiring business sites, building premises for retailers, and organizing joint marketing, training, consulting, bookkeeping and similar services. In the 1970s Kesko surpassed its competitors in size. It has been the market leader in the Finnish wholesale and retail trade ever since.

Today Kesko and the 1400 K-retailers form the K-Alliance. They act in close chain co-operation for each store type in practically all major sectors of trade. Kesko now calls itself a marketing and logistics company. Its trading concepts are well known and it has an extensive store network. Centralized purchasing has become global: Kesko is a member of international alliances such as AMS, Electronic Partners International, EuroMateriaux, Intersport and the World Wide Retail Exchange.

Kesko proper operates as a non-food retailer in department stores and hypermarkets and runs the K-Alliance's customer loyalty group programme, which has 2.7 million cardholders. Kesko has been listed on the Helsinki Stock Exchange since the 1960s. The K-retailers still hold the majority of votes, but there are now over 25,000 shareholders (including the major pension funds, insurance companies, banks and plenty of foreign investors). K-Alliance employs about 40,000 people. Some 3000 are in Sweden and the Baltic countries, where Kesko's business is growing fast. Turnover in 2002 was 6.6 billion euros.

A long history of economic responsibility

Corporate responsibility is nothing new to Kesko, though we have not used the term until lately. We have always kept the promise that we pay our bills on time and our taxes as they are imposed. Last year we published an ad directed to investors pointing out that Kesko has always had a generous dividend policy. The text was: "We once tested how it would feel to make losses and refrain from paying dividends. That was in 1967. We did not like it. Therefore, ever since we have always made profits and paid dividends." Though the ad was meant to be funny, there was some serious truth in it: Kesko wants to be a reliable, safe, long-term investment for the owners. It is the same with our employees. We want to offer safe long-term jobs that do not suffer from small fluctuations. While there have been big structural changes in the organization, very few people have lost their jobs. In 2001 employment was terminated for production and financial reasons in only 65 cases (5% of all terminations).

In any company good economic results and financial resources are essential to developing environmental and social responsibilities. If a company must be reorganized for financial reasons, the project of building an environmental management system will definitely be postponed.

And vice versa: acting in a responsible way has to be profitable, either directly or indirectly, or motivation is weak. Corporate values and the commitment to them shown by the CEO and senior management are extremely important. At Kesko the core values were studied and published for the first time in 1996; they were revised in 2002. One of the core values is: "We bear our corporate responsibility." Kesko's CEO personally put a lot of effort into presenting and explaining the new values. He held 25 briefings on the issue, meeting over 4000 employees at these events – some in the head office before lunchtime, one at 10 p.m. in the district warehouse on the night shift. All our internal measurements show that our employees are far more committed to our responsibility targets than we would have expected.

First environmental policy in 1990

Environmental awareness at Kesko dates from the late 1980s, when industrial companies started to develop public environmental reporting. Kesko's first environmental policy was published in November 1990. At that time we concentrated on decreasing our own impacts, not bothering that much with what happened outside our walls. We started with various packaging development projects and soon introduced reusable plastic cases to replace cardboard ones in distribution transport. We also started using our lorries to collect recyclable corrugated board, aluminium cans, etc. from the K-stores, disposable bottles from our restaurant customers, and plastic and other "energy waste" (i.e. waste that can safely be incinerated to generate electricity) from some pilot stores. Today about 30% of the total volume of our logistics consists of "return logistics" (i.e. we have reduced the incidence of delivery trucks making empty return trips), a rate of progress we would not have dreamed of ten years ago and that is still unthinkable to our competitors.

In 1996 we decided that though our environmental activities had shown plenty of good results, we needed to be more systematic in our efforts. We first signed the ICC Business Charter for Sustainable Development, renewed our environmental policy and based it on the life-cycle approach, and started implementing the brand new ISO 14001 standard in those Kesko units with the most significant environmental impacts. For ISO implementation we built an internal network of about 50 people and trained them to use the standard and take charge of the project in their own units. Very soon we learned that we should concentrate on real estate, transportation, waste management, transport and retail packaging, and product development.

ISO 14001: slowly but surely

The first unit to become ISO-certified was our only industrial unit, the coffee roastery Viking Coffee Ltd, which already had ISO 9000 certification. Next were our logistics unit and our transportation company, Kesped Ltd. In these two units we trained as many as 1500 employees to use ISO 14001. Responsibilities are split up "at floor level", which we consider important for commitment. This has helped us include some environmental indicators in our profit-sharing system. Similar day-to-day needs are kept in mind when implementing ISO 14000 in the purchasing unit of Kesko Food Ltd, which will soon be certified, and in our Anttila department stores, probably the first department store chain in the world to proceed with ISO 14000 certification.

At the beginning of 2001 Kesko outsourced the maintenance of real estate to ABB Facility Management Ltd, already an ISO 14000 certified company. ABB has brought more environmental expertise to this task, helping Kesko strengthen its position as a frontrunner in cutting energy consumption.

A lot of energy devoted to saving energy

Energy use in real estate is the source of Kesko's greatest environmental impact and must be carefully monitored. Together with ABB, the monitoring system has been significantly improved using a system of distance hourly readings. The saving targets have been set according to the national real estate and construction sector energy-saving agreement. Results so far are promising. However, especially in the food stores the trend is towards products that need increasing amounts of refrigerated space. Investments in this field seem very profitable, with payback periods of six months to two years.

The environmental profile of the energy Kesko supplies to K-Alliance real estate has been calculated since 1999. Kesko's own electricity purchases account for about 0.23% of total impact on climate change in Finland and about 0.29% of total consumption of the country's energy resources. Adding up emissions from electricity, heating, transportation and business trips, Kesko's CO_2 emissions in 2001 totalled 323,000 tonnes, or 42 tonnes per million euros in sales. We regard this figure as relatively high, as most of our electricity has been produced by fossil fuel. The share of nuclear power is very low, meaning that our radioactive waste is almost zero. We find it very difficult to compare CO_2 emissions with radioactive waste in our energy profile, as we do not know what weight each should be given. Basically we would like to increase the share of renewable energy in our purchasing. The problem is partly financial, as real structural changes would bring much higher costs, and partly practical, in that we do not know the profile of the energy we will be buying in the future.

The "core and shell" approach in building

Kesko applies the principles of eco-efficient construction in all its major building projects. This means the real estate's entire life cycle is taken into account, from site acquisition to a building's anticipated demolition. Kesko's "core and shell" concept separates business buildings into the shell (the real estate itself) and the adaptable core (the business operations), which differ with respect to their expected life cycles. The key factors are the versatility of the shell and the adaptability of the systems inside. The goal is to minimize energy, alteration and other costs during the building's life cycle for environmental and economic reasons. When energy consumption and premises' adaptability are managed and controlled throughout the life cycle, the premises' operating expenses will remain low while the tenants' competitiveness increases.

Planning is the main tool used when aiming at life-cycle efficiency. High-quality planning reduces environmental impacts. Eco-efficient construction requires simplification, keeping to the basics, recognizing what is essential, and considering potential alternative uses during the life cycle at the early planning stage. Cooperation with various parties and experts will create business premises with a reasonable investment and lower than normal costs throughout the life cycle.

Kesko has developed planning at both the project and implementation stages. It has participated in research projects on eco-efficient construction that help promote, measure and verify how well targets have been reached. These projects are mainly conducted by the Technical Research Centre of Finland. They include instructions for planning process, environmental classification and labelling for business construction, and software for life-cycle comparisons.

Self-made software

In logistics, data collection and calculation of environmental impacts require efficient information technology. Due to a lack of suitable software packages, Kesko experts have themselves tailored the needed environmental software. The basis of our KELO model (KELO means sustainable logistics) was a doctoral thesis by one of our consultants, *Environmental Modelling System – A Framework for a Cost-Effective Environmental Decision-Making Process.* The method integrates company operations, their environmental impacts and the related in-house environmental costs into the company's strategic decision-making.

KELO includes the key functions in the delivery chain: purchasing, packaging, storage, distribution, return logistics and store operations. The model helps us monitor the energy consumption of Kesko's logistical operating systems, the emissions they cause and the costs, as well as recycled and waste material. The model also calculates how emissions and costs change when alternative modes of transport are used, distribution is centralized or investments are made, e.g. in waste management equipment.

After close to four years of development, and with partial funding by the National Technology Agency TEKES, the KELO model was introduced to the logistical warehouses. In addition to the waste management model, which has already been used for two years, there is now a transportation model (purchasing and delivery transport, vehicle costs monitoring), a transportation fleet monitoring model, a return logistics model and a packaging model. A patent on the KELO model is being sought for the whole EU area.

The waste management model has been extended to our department stores and to some

pilot stores in the hypermarket and supermarket chains. The model's automatic data transfer is being developed in cooperation with waste management operators. Statistics already show that Kesko is a frontrunner in waste management. The amount of mixed waste generated at Kesko Food's warehouses has dropped from 0.60 to 0.42 kg/m^3 in the last five years; 88% of all waste is now recovered, compared with 75% in 1997. At the central warehouse of Anttila's department stores the recovery rate is 85%.

K-environmental diploma stores

As ISO 14001 is a somewhat bureaucratic management system for food stores and does not include specific requirements, Kesko has developed a tailored system for K-food retailers together with the Finnish Association for Nature Conservation. This management system is called the "K-environmental store diploma". It consists of a set of 160 checking points in ten different environmental management areas. Following self-assessment and needed amendments, all personnel are trained and an environmental third party audit must then be passed.

The framework of the checklist has remained the same throughout the diploma's existence (since 1998), though the emphasis changes from year to year. In 2001 the focal points were environmental training and energy saving. The focus in 2002 has continued to be on energy saving, as it is now the key environmental protection target both nationally and globally.

Currently 170 K-food stores and 15 K-hardware stores have been granted the diploma. As the concept was one of the award winners in Johannesburg (ICC/UNEP World Summit Business Awards for Sustainable Development Partnerships), interest in becoming a diploma store is growing. We expect to almost double the number of diploma stores next year. We hope to get these requirements into our basic chain concepts during the next few years, meaning that all our stores will follow very high environmental standards.

Social risks: a challenge to supply chain management

Kesko imports from over 100 countries. Imports represent close to 20% of sales; 60% of imports are from the EU and 40% from outside it. Imports from developing countries entail social risks that could cause problems for Kesko's corporate image and sales. Therefore, in 1999 we began studying our social risks using UNICEF, Amnesty International, trade unions and other NGOs as sources. Following this risk analysis, we had a list of approximately 500 suppliers in 35 countries selling us garments, shoes, home textiles, toys, sporting goods, canned fruit and fish, coffee, tea, cocoa, citrus fruit and other products. The value of these imports is about 70 million euros, or some 16% of all imports from outside the EU, accounting for 1.2% of Kesko's total purchases. This amount seems small but is definitely worth a closer study.

In 1999 Kesko's Board of Directors approved Kesko's Principles of Socially Responsibly Trading. These principles are based on the Universal Declaration of Human Rights, the Convention on the Rights of the Child, and the core conventions of the ILO. As a tool for implementing these principles we use the SA 8000 standard, which is based on all of these. Our buyers recommend that their suppliers adopt this standard. Compliance is demonstrated through certification, which is granted by an independent, authorized and trained auditor. We recommend Bureau Veritas Quality International, with whom we have an international agreement to promote this certification.

Kesko alone is too small a buyer to have commercial power over suppliers. Its purchases from companies operating in developing countries usually account for 1-2% of their sales. The success of a social standard depends above all on the activities of large worldwide manufacturers of branded goods, and on large trading companies. Kesko is working actively with international trade organizations and purchasing groups to promote the social standard and third party audits. Progress has been very slow, but a lot of negotiations are expected to bring new positive results in the months ahead.

Kesko's "risk suppliers" employ about 350,000 people. At the end of 2002, as far as we know, 12 suppliers with 25,000 employees were certified, i.e. about 7% of the target. We also know that Chiquita, for example, is working with SA 8000 on its own farms. Their certification would cover another 25,000 employees. The extent of certification will never come close to 100%, but every step towards better working conditions is important.

Kesko supports GRI

By the end of the 1990s, Kesko had actually begun to implement "triple bottom line management", even if that term was not officially used. Environmental performance was pretty well measured, principles of socially responsible trading had been introduced, and new ethical guidelines, *The Way We Work*, had been distributed to Kesko employees. The need to report on social performance rapidly increased, and a separate social report was almost published in 1999. As we were not quite sure what information our stakeholders would prefer, we decided to postpone social reporting until a common solution was in sight.

We did not have long to wait. In the summer of 2000 the Global Reporting Initiative (GRI) published their first guidelines on sustainability reporting. We immediately took advantage of these guidelines, as they clearly confirmed our thoughts of how corporate responsibility could be measured. We studied our data and decided that it was sufficient for a GRI report.

We wanted to be the first company in Finland to follow GRI in our reporting, as we knew that the first report would arouse great interest, much greater than if we were the seventh or thirteenth company to do so.

Our first GRI report came out on 4 May 2001. We were right as concerns interest. This topic has been one of the hottest in the Finnish media over the last two years, and Kesko is always included in the publicity as the frontrunner in corporate responsibility. We are now working on our third GRI report, which for the first time will be externally verified by our chartered accountant, PricewaterhouseCoopers. In a Finnish evaluation we received the award for best CR reporters in 2001 and 2002. The latter report put us in the Top 50 in the Global Reporters survey by UNEP and Sustainability Ltd.

Conclusions

The practical steps towards sustainability described here have been carried out for over a decade. The time and effort have not been in vain. Kesko has been able to develop a self-tailored management system for sustainability, including high-class information technology, clear performance indicators and transparent reporting. Environmental measures have increased our profitability – not only by lowering our costs but also by encouraging systematic work and better quality in all our activities. The social quality control of our supply chain has further increased our reputation as a responsible company, with very positive effects on our corporate image, which then indirectly increases sales and investor confidence. Last but not least, our own employees are proud of the work and the results, which has positive effects on job satisfaction figures and on recruiting new people.

Values and principles do not lead to results if employees are not committed to taking responsibility. Commitment has to start with top management, and sustainability has to be an essential part of the business strategy. Kesko's CEO considers work on sustainability extremely important. As chairman of the Finnish Service Employers' Federation, he is well informed about UNICEF and ILO activities. Because child labour is one of our major social risks, he has also dedicated some of his time to UNICEF Finland and their Global Movement for Children project.

At the moment Kesko does not plan to make big changes in its sustainability efforts. Concerning our environmental performance, the core issues over the next few years are energy purchasing and indirect CO_2 emissions, the UN's ten-year sustainable development and consumption programme, and links between our brands and sustainable development. We have the pleasure of participating in the new retailers' group UNEP has called together, and we expect plenty of benchmarking possibilities from that cooperation. ◆

Drawing together sustainable production and consumption at Marks and Spencer

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Summary
Mainstream consumers want to shop more sustainably, but not (at least today) if this entails perceived sacrifices in terms of cost, quality, fashion or functionality. The challenge for the retail sector is how to encourage customers, suppliers, employees and shareholders to work towards achieving more sustainable production patterns and sustainable consumption. Management at Marks and Spenser has driven improvement not just in financial performance, but also in the approach taken to corporate social responsibility (CSR). The terms CSR and sustainability are often used interchangeably; Marks and Spenser views CSR as the management process by which it is possible to move towards a more sustainable business model.

Résumé
Le consommateur moyen veut bien acheter des produits plus compatibles avec un développement durable, mais pas (du moins actuellement) si cela implique des sacrifices perçus comme tels en termes de prix, de qualité, de mode ou de fonctionnalité. La gageure, pour le commerce de détail, est de trouver un moyen d'encourager clients, fournisseurs, salariés et actionnaires à agir pour parvenir à des modes de production et de consommation plus durables. Chez Marks and Spenser, la direction a lancé une campagne pour améliorer non seulement les résultats financiers, mais aussi la façon d'envisager la responsabilité sociale de l'entreprise. Les expressions " responsabilité sociale des entreprises " et " développement durable " sont souvent employées l'une pour l'autre ; pour Marks and Spenser, la responsabilité sociale des entreprises est le processus de gestion qui permet d'évoluer vers un modèle d'entreprise plus durable.

Resumen
La mayoría de los consumidores desean realizar sus compras de manera más regular, pero no (por lo menos en la actualidad) si esto implica realizar sacrificios en términos de costos, calidad, moda o practicidad. El desafío para el sector minorista es de cómo instar a los clientes, proveedores, empleados y accionistas a obrar de manera tal que se pueda lograr una producción y un consumo más sostenibles. La dirección de Marks y Spencer ha introducido mejoras no sólo en lo que atañe al rendimiento financiero, sino también en su enfoque de Responsabilidad Social Empresarial (CSR). Los términos CSR y sostenibilidad se utilizan a menudo como sinónimos; Marks y Spencer considera a la CSR como un proceso de gestión, por el cual es posible avanzar hacia un modelo comercial más sostenible.

For over 100 years Marks and Spencer has been one of the UK's leading retailers. We sell 30,000 product lines, produced by approximately 1500 suppliers in over 100 countries. We sell a wide range of food, clothing, home and beauty products. We also have a financial services division. We only sell Marks and Spencer products (i.e. we are a 100% own brand retailer).

We currently have 320 stores in the UK and four in Eire. We also sell via 140 franchised stores in 30 other countries around the world. Our most recent trading figures saw turnover of 12.3 billion euros and profits of 1.03 billion euros, up 30% on the preceding year. Although we are a predominantly UK focused business now, we are the third largest seller of clothes in the world.

In the late 1990s we faced significant commercial challenges, which resulted in closing or selling 40 stores in continental Europe as well as selling our Brooks Brothers operations in the United States.

Because of poor trading, a new management team was introduced. They have now stabilized our business and begun to drive a new period of growth. It is the purpose of this article to show how the management team has driven improvement not just in the business's financial performance, but also in our approach to corporate social responsibility (CSR).

The terms CSR and sustainability are often used interchangeably. We view CSR as the management process by which we move towards a more sustainable business model.

New marketplace

Many of our commercial problems in the 1990s stemmed from losing touch with our customers. One of the first things the new management team did on their arrival was to go back to basics and ask our customers what they expected in terms of the retail staples of price, quality and fashion. They soon ascertained that we had missed significant developments in market expectations, and that major changes had to be made to our product offer.

But they didn't stop there. They went to the very heart of our business and asked what it stood for. We had long been one of the UK's most generous corporate donors to charity, committed to giving at least 1% of pre-tax profits to charity. For many years this proved sufficient to discharge our social obligations. But scrutiny of our rapidly changing marketplace showed that we needed a new approach to our social obligations. This new approach needed to reflect the realities of selling consumer products in the UK in the 21st century.

A growing trust deficit

The first thing we had to recognize was that there was a significant trust deficit in the UK. After a decade of food, financial and medical scandals, UK consumers were no longer willing to accept blanket reassurances that all was well. Once they would have trusted assurances from the government, regulators and scientists. Today such assurances merely breed suspicion and doubt. We found that consumers were increasingly turning to retailers directly to provide reassurance that their products were safe.

On its own this was manageable. We had been selling food for over 30 years and had dedicated significant resources during this time to ensuring that our products were safe. But other concurrent trends had set in motion a much more significant challenge for us and the rest of the UK retail sector.

A wider range of issues to manage

As noted, we had long believed our social obligations as a retailer could be discharged by giving money to charity as well as having high standards of welfare for our employees and reducing the environmental impact of our own operations, i.e. lorry fleets and stores. The late 1990s saw this assumption challenged. People began to realize that a retailer's true environmental and social impact occurred not in its own operations but in its supply chains and during the use and disposal of its products.

As a retailer, we were consuming large amounts of wood, fish, cotton, crops, petroleum and other raw materials to make our products. Technologies were being used about which there were significant concerns (e.g. chemicals and genetic modification). Products were being made in countries in the developing world where labour standards could be very different from those considered acceptable in our northern marketplace.

Once we had sold our products, large amounts of water and energy were being consumed during their use (e.g. clothes washing, cooking food). Then there was the burden associated with their ultimate disposal to landfill or incinerator.

So we were now faced with a very real challenge: an explosive growth in the number of environmental and social issues we faced, and their geographical and managerial distance from us. But there was still a third piece of the jigsaw that had to fall into place to make sustainability a really significant issue for the retail sector – access to information.

Marks and Spencer sells and uses only free range eggs

Consumer empowerment

Take a step back, and put yourself in the position of the consumer. You're reading your paper, watching TV, doing the shopping. There's a scare story about antibiotics in chickens, plus GM in soya, child labour in China, pesticides on fruit, depleted fish stocks in the North Sea. The issues are hugely complex, the science often controversial, the information overwhelming. And above all, what can you do about it? You have to eat food, wear clothes, have furniture in your home.

This is where the pressure groups, media and socially responsible investment community have stepped into the knowledge vacuum. They have begun a process we call brand "editing". Taking large amounts of complex information from all the retailers in a particular sector (food, clothing, electricals, etc.), objectively benchmarking performance and then distilling it down into simple messages or league tables for consumers. Brand X is a world leader in reducing pesticide use, using sustainable wood, avoiding child labour, etc.; Brand Y isn't.

Suddenly consumers are empowered. A dense mass of information has been thinned down to simple messages that are relatively easy to act upon, e.g. shop with one brand and not another. Now, of course many other factors will continue to shape purchasing decisions. Convenience (ease of access to a particular store) and price are the most important, but also issues such as quality and fashion. However, consumers can at last begin to add sustainability to the complex web of issues that shape their purchasing decisions.

Why have brand editors shifted their attention from their traditional targets in the extractive or chemicals sectors to the retail sector? It's simple. Retail brands are recognized by everyone, and everyone can act on their concerns about how they operate. They can take their custom elsewhere. It's a basic truism that consumption is the new democracy. Consumers can vote instantaneously for change by taking their custom away from a poor performer.

Using the new knowledge based economy, brand editors can capture the public's attention in hours or days and use retailers to effect change down their supply chains. A "dirty" extractive company may be immune to campaigning, unknown by the public, but it is not immune to the potential loss of large amounts of business from retailers keen to protect their brand image.

So these three factors (trust deficit, greatly expanded range of environmental and social issues, and the targeting of the retail sector by activists) have made sustainability a huge issue for the retail sector. It is the purpose of the rest of this article to show how we've responded to these new challenges.

We must take consumers with us

But before we do so, a word of caution. For those who want to see business in general and retailers in particular take their social and environmental responsibilities more seriously, we are sure this article has made positive reading so far. But life is never straightforward. Western consumers have seen tremendous improvements in the retail experience in the last decade: falling prices, increasing quality, functionality and availability. They will not give up these gains readily. If we attempt to persuade them to do so today in the name of "sustainability" or "responsibility" – if we give them the impression that more sustainable purchasing really means sacrifice – we will leave mainstream consumers behind.

We believe that for the rest of this decade our challenge predominantly concerns embedding sustainability within the production phase of our operations; in effect, consumers will be asked to make few if any sacrifices in their consumption patterns. We will do the hard work for them.

However, as societal understanding of sustainability increases over the next few years we should be in a position to have a dialogue with our customers – to share with them what we are doing on their behalf and engage with them on issues where changes to their pattern of consumption may offer significant benefits to the social and environmental world we all live in.

How we manage CSR

Developing a business case for CSR

After identifying these trends, we translated them into a business case for CSR. Some are sceptical about the business case for CSR, but we believe it is imperative that any company understands the risks and opportunities that CSR presents for its business before it acts. Our business case may be summarized as:

- securing a licence to "sell": ensuring that our customers trust that we operate responsibly across the full life cycle of our products, services and operations;
- differentiation: providing ourselves with a point of difference in a crowded "me too" marketplace, one that can be substantiated by fact rather than marketing spin;
- risk management: reducing the risk that we will be unable to access the raw materials, chemicals, manufacturing processes and countries of operation we need to put products on the market;
- operating costs: improved efficiencies from using less resources, but also reduced waste of management time "fire fighting" CSR crises;
- investment: reassuring our investors that CSR risks will not damage their investment in us;
- people: motivating our employees and attracting the talent we need to prosper in the future;
- innovation: confronting the status quo and developing products that are better for our customers as well as having less environmental and a smaller social footprint;
- partners: attracting the long-term business partners of the future, many of whom may come from outside what we currently define as the retail sector.

Together these eight business drivers provide us with a framework within which we manage CSR.

Management structures

Like many companies, we have introduced a CSR Committee (CSRC). Chaired by our Chairman, Luc Vandevelde, it consists of three executive directors and two non-executives; it is one of four official sub-committees on the main board. The CSR Committee sits three times a year. It is responsible for establishing the long-term vision for CSR in the business and integrating it into our wider business plan.

Beneath the CSRC we have a CSR Forum, consisting of senior operational managers from across all elements of the business (buying groups, human resources, corporate governence and store operations). Their job is to turn the CSRC's vision into action. They must reconcile very real short-term commercial pressures with longer-term CSR aspirations. They must also ensure that we take a consistent approach across our whole brand on certain key issues. For example, we cannot have widely divergent animal welfare policies for foods and clothing.

The work of the CSRC/CSRF is supported by a small corporate CSR Team. We have deliberately kept this team small and its remit strategic. This has required a profound change in our approach to CSR. As long as the focus of our activities was

on charitable giving, we could operate a central team remote from the rest of our business. Now that our CSR focus is on the products we sell, we have had to engage our whole company – from the people who buy our cotton, to those who specify what pesticides we use and what countries we source from, through to those who stipulate employment practices and run our stores.

This has been a huge challenge for us, but we are beginning to make progress by working with the "grain" of our business. Because we only sell our own products, we have a team of 140 in-house technologists. They are experts in fibre production, dyeing and finishing clothes, and agriculture and fisheries, to cite but a few areas. Their role has traditionally been to ensure that our products meet high quality and safety standards. Now we are asking them to add sustainability to their remit, building it into our existing product specifications. They have been crucial in ensuring that we meet demanding consumer expectations on price, quality and fashion while making our production systems more sustainable.

What we've learned

So far we've provided a quite theoretical explanation of our approach to CSR. We would now like to share with you some of the real things we have delivered. This is not intended to be a comprehensive list, but rather one from which some practical lessons can be drawn and shared with you.

Don't be blinded by science

When genetically modified food was first introduced to the UK in the late 1990s we, like all other supermarkets, immediately thought about the benefits to us and our supply chain of utilizing the technology. Reduced costs and improved yields all sounded very seductive. But we like everyone else forgot to ask our customers if this was an "experiment" they wanted to participate in.

When the scare stories started in the press, we turned to the biotech industry to reassure our customers with the science. But society had moved on. It no longer trusted purely scientific reassurance; it wanted a broader discussion on the uncertainty surrounding the technology, the ethics of big corporations controlling world food production, and information on which products contained GM and which did not. When the biotech industry was unable to deliver the level of debate consumers were looking for, we decided to pull out of GM. We are now one of the few western food retailers that can say that *all* the food products we sell are free of GM ingredients.

This does not make us anti-GM technology; we are just questioning the degree to which consumers have been engaged and reassured to date that the benefits of the technology outweigh the risks.

Don't rely on legal compliance

The use of pesticides in food production is one of the most important issues for our customers. For many years we assured our customers that our approach to pesticide use was good by pointing to the quarterly UK government survey of pesticide residues on food. This showed that we were consistently the only UK retailer not to breach government guidelines on residue levels.

Two years ago Friends of the Earth issued a league table of UK supermarket pesticide residues, based not on legal compliance but on the actual number of products that had a detectable (albeit legal) residue. We were amazed to see that we were the worst, and even more importantly so were our customers. We assured them we weren't breaking the law, pointing out the statistical flaws in the analysis of the data. They didn't care. They wanted us to move towards zero residues.

Now that we know legal compliance is not enough, we've developed our own policy on pesticide use in the production of fruit, vegetables and salads. It commits us to moving towards zero residues, a hugely ambitious long-term commitment, and sets intermediate targets for getting there. It commits us to reporting publicly our own in-house testing data on our web site. It also bans the use of 60 of the most hazardous pesticides across our global supply chains and commits us to phasing out another 19.

Don't just throw bricks

Chemicals are indispensable to society. They are indispensable to retailers. They can be found in every one of our 30,000 product lines. Yet the reputation of the chemical industry is at rock bottom. Pressure group campaigns against the use of hazardous chemicals in consumer products have a receptive audience. People distrust chemistry, as it's difficult to visualize the benefits and easy to imagine human health problems. We've acted to ban or phase out use of a number of the higher risk chemicals in our business; not just the pesticides mentioned above, but also PVC, tributyltin, alkylphenol ethoxylates, brominated flame retardants and certain antibacterials.

This has pleased many of the campaign groups, but we are still hugely dependent on the chemical industry. We want the chemical industry to be trusted, to be innovative and successful. Over the last couple of years we've engaged heavily with the industry to explain why we are acting and how we can work together to improve the performance and understanding of chemicals.

Seek stakeholder consensus

Fish are hugely important to our food business, yet all over the world stocks are in decline. We have developed a threefold approach to wild fish sourcing. First, we promote the best. Here we stock fish that have been certified by the Marine Stewardship Council (MSC). Second, we avoid the worse. We are the first UK food retailer to be able to say that we do not stock any of the 20 fish on the Marine Conservation Society's black list of stocks that are totally overfished.

However, the vast majority of fisheries lie between these extremes: not bad enough to be banned, but with huge scope for improvement. Here we are supporting an innovative project involving the fishing industry, WWF and other stakeholders to develop a consensual model on how to recover particular fisheries. Called "Invest in Fish", it brings together protagonists who have found it difficult to talk with each other. It balances scientific rigour (biological stock assessments) with stakeholder engagement. We hope to pilot it in the south-west of England later in 2003.

Provide consumers with easy to understand messages

Many of the issues we are dealing with are hugely complex. It is vital that we provide consumers with straightforward messages on sustainability that they can engage with. In 1997 we became the first UK food retailer to sell only free range shell eggs, all 50 million of them. In 2002 we extended this commitment to the 250 million eggs we use as ingredients in products such as quiches, cakes and ready meals. We now have a simple message for our customers: every egg used in our business is free range.

Focus on where you can make a real difference

We have recently completed a research project that looked at the energy consumed throughout the life cycle of a pair of trousers. The research showed that nearly 80% of energy consumed was actually associated with the washing of clothing once we had sold it. Energy consumed during manufacture, transport, sale and disposal was just 20%.

The most effective way for us to reduce our CO_2 footprint was therefore to lower wash temperatures on many of our clothing items. By doing this we could save an amount of energy equivalent to the saving that could be obtained by closing all our stores for six months. But this was more than just about changing a label. We also had to test the clothing to make sure that there were no compromises on the quality of our products during their lifetime.

The future

We believe the marketplace trends and the need for the type of practical solutions we have identified in this article will grow rapidly in the future. Expectations of retailers, and the critical role they can play in sustainable development, will increase – as will demands for radical changes in the way we produce products and ultimately consume them.

Overarching this revolution in how we do business will be an expectation that we:

- listen to all stakeholders;
- develop clear positions on key issues that can be understood by all;
- provide robust evidence concerning progress making our business more sustainable.

Equally, we are clear that this will not be easy and that we will have to compromise in certain areas so that we can take our customers with us on this journey. In addition, our actions may have profound implications for those who supply us, regulate us, invest in us and work for us. However, sustainability will not go away. Like any new issue, it will go through a sometimes painful evolution, blind alleys will be explored, mistakes will be made. But we know we must retain a clarity of purpose and a commitment to improve if we are to prosper for another 100 years. ◆

Switzerland's Coop: working closely with suppliers

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Summary

Coop is Switzerland's biggest seller of environment-friendly and fair trade products. Its sustainable retailing efforts are focused on four "ecological flagship" labels covering organic and free-range food, organic textiles and cosmetics, fair trade goods, and other products. These products' success greatly depends on close cooperation with suppliers. As the guarantor of product quality, Coop makes use of guidelines, codes of conduct, certification and independent monitoring to ensure that products are up to standard. In the case of its organic cotton textiles, Coop has helped farmers in developing countries make the transition from conventional methods to organic ones.

Résumé

Coop est le numéro un, en Suisse, de la distribution de produits respectueux de l'environnement ou issus du commerce équitable. Ses efforts en matière de commerce de détail durable s'articulent autour de quatre labels écologiques phares couvrant les produits de culture biologique et d'élevage respectueux des animaux (parcours en plein air), les textiles et produits cosmétiques naturels, les produits issus du commerce équitable et autres produits. Le succès de ces produits dépend en grande partie d'une coopération étroite avec les fournisseurs. Garant de la qualité des produits proposés, Coop recourt à des lignes directrices, à des codes de conduite, à la certification et au contrôle par des organismes indépendants pour garantir le respect de ses cahiers des charges. Dans le cas des textiles en coton de culture biologique, Coop a aidé des agriculteurs de pays en développement à abandonner les méthodes classiques au profit de l'agriculture biologique.

Resumen

Coop es la mayor compañía suiza de venta de productos respetuosos del medio ambiente, aplicando prácticas comerciales equitativas. Sus esfuerzos comerciales sostenibles se basan en cuatro aspectos ecológicos básicos, que cubren la alimentación orgánica y de cría al aire libre, los textiles y cosméticos orgánicos y las prácticas comerciales equitativas y otros productos. El éxito de estos productos depende en gran medida en una estrecha colaboración con los proveedores. Como garante de la calidad del producto, Coop aplica directrices, códigos de conducta, métodos de certificación y supervisión independientes para garantizar que los productos están de conformidad con las normas. En el caso de sus textiles orgánicos de algodón, Coop ha colaborado con los agricultores de países en desarrollo para que hagan la transición de los métodos convencionales a los orgánicos.

Coop is Switzerland's tenth largest company, second largest retailer and third largest employer, with sales in 2001 of more than EUR 9 billion. It has 1600 retail outlets and around 46,000 employees. Coop's share of the Swiss retail market has grown steadily for several years. It was 14.6% in 2001 (21% of food sales, 9% of sales of other products). In sales of products meeting environmental and fair trade standards, Coop is the Swiss market leader.

As its name suggests, Coop is a consumers' cooperative. Its origins date to the height of the coop movement in the mid 19th century; the Union suisse des sociétés de consommation, its direct ancestor, was formed in 1890. Coop adopted a modern corporate structure in 2001. There are over 2 million member households (though one does not have to be a member to shop at Coop).

Coop has been involved in environmental issues for some 25 years. It began to be particularly active in this area in the 1980s. Its first ecolabel, Oecoplan, was introduced in 1989 to denote environment-friendly products and packaging in both the food and non-food ranges.

We at Coop believe the customer has a right to healthy, natural food and to products that are produced in line with environmentally and socially sustainable methods. To ensure that this right is fulfilled, we must make sure the message is communicated throughout the supply chain. One of our central objectives is: "together utilizing sustainable protection of the environment as an entrepreneurial opportunity."

Coop's environmental principles

To give practical expression to this vision, Coop has formulated ten environmental principles:

1. We are committed to environmentally compatible production, and we develop a distinctive profile through our Naturaplan, Naturaline, Oecoplan and Cooperación/Max Havelaar flagship labels.
2. We ensure compliance with environmental legislation and anticipate future trends.
3. We define measurable and controllable environmental goals with costs in mind when setting our corporate objectives.
4. We use new technologies to find environmentally compatible solutions.
5. We minimize the production of waste and ensure that packaging and products are disposed of in an environmentally compatible manner.
6. We reduce specific energy consumption and promote transport by rail and ship.
7. We encourage our business partners to act in an environmentally conscious manner.
8. We train our employees to behave in an environmentally conscious manner.
9. We cooperate with the authorities and environmental organizations to find appropriate solutions.
10. We communicate environmental concerns forcefully and effectively.

The "ecological flagship" labels referred to in the first principle signal indicate added value. Coop monitors adherence to the second principle within Switzerland, and expects suppliers to similarly assure compliance with other national laws. The fourth principle, concerning technologies, is mainly focused on energy savings (especially reduction of CO_2 emissions) and recycling of products such as PET bottles and electr(on)ic equipment.

For all partners involved, the effort is considerable and the work is often trail-blazing. This involves considerable persuasion and training at the grass roots; extensive, broadly based marketing and special advertising measures; and comprehensive internal and external communications and image campaigns. However, the resulting growth in sales and in customer satisfaction proves that the effort is worth it.

Supplier guidelines

Beyond the ten basic principles, Coop follows specific guidelines to ensure that our suppliers of both food and non-food products are environmentally, socially and ethically responsible. The latest version of the guidelines requires Coop to assess these business partners in accordance with set standards, and to give preference to those that agree to comply with the guidelines. Coop is committed to gradually broadening the social and environmental requirements its partners must satisfy. For producers able to comply, these requirements can translate into attractive opportunities in the marketplace.

The guidelines apply to all products sold. They can be broken down as follows:

Social component

Under the social component of sustainability, the key requirements are:

- ♦ compliance with local labour law;
- ♦ adequate wages;
- ♦ humane working conditions, including
  - • no forced labour or child labour
  - • no discrimination on the basis of race, gender, faith, politics, nationality
  - • freedom of association and right to collective bargaining;
- ♦ for textiles, compliance with a special code of conduct in line with the internationally recognized Clean Clothes Campaign (*www.cleanclothes.org*).

Environmental component

The main requirements under the environmental component are divided into two areas: raw materials and, broadly speaking, cleaner production.

Requirements for raw material include:

- ♦ no overexploitation of natural resources;
- ♦ preservation of biodiversity;
- ♦ preference for integrated production;
- ♦ humane animal husbandry.

We describe the second area as "preventing environmental pollution and minimizing the environmental impact of production, transportation and waste disposal." It involves:

- ♦ continual improvement on the legal provisions (see principle 2 above);
- ♦ support for environmental management systems.

Standards for flagship labels and textile products

Standards for flagship labels and for textile products are even more strict.

In Coop stores the four ecological flagship labels programme is the clearest evidence of the company's involvement. The first three labels were launched in 1993, and the fourth (actually our oldest ecolabel) was redefined in 1998.

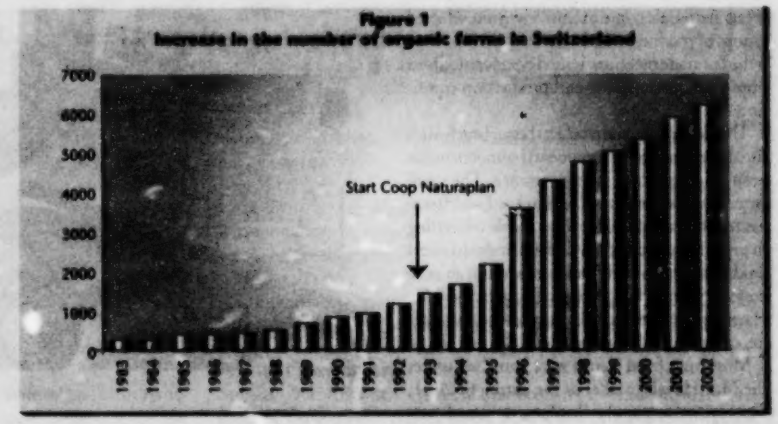
Naturaplan is for products that are organically grown and carry the "Bio bud" mark of the Swiss Union of Organic Agricultural Organizations (Bio Suisse); plus free range meat and eggs, not necessarily organically raised. This label now covers some 1500 products, and the number is constantly growing.

Naturaline is the label for organic, fair trade cotton products (see case study below) and natural cosmetics.

Cooperación covers the Max Havelaar line of fair trade products: coffee, tea, honey, chocolate, hazelnut spread, cocoa and chocolate powder, bananas (fresh and dried), orange juice, roses and rice.

Oecoplan is the label for non-food products and services (e.g. dry cleaning) that meet environment-friendly standards, such as detergents and other cleaning agents, recycled paper, garden supplies, varnishes and paints, wood products (meeting Forest Stewardship Council requirements), flowers and plants (with Bio bud logo), and other products made from recycled or renewable materials.

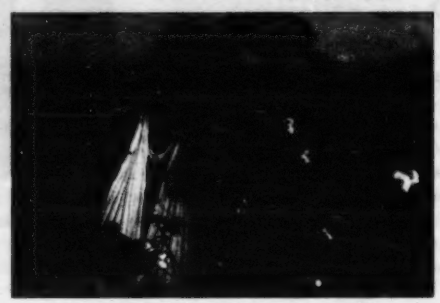
Figure 1
Increase in the number of organic farms in Switzerland



Surveys indicate that some 43% of people in Switzerland buy a product from the flagship label ranges at least once a week. Each of these labels guarantees that specific conditions have been met. For example, to be included in Naturaplan a product, whether grown in Switzerland or elsewhere, must satisfy the Bio Suisse guidelines; non-organic meat and eggs must satisfy strict Naturaplan guidelines, processing must be kept to a minimum, and no additives are allowed. Naturaplan excludes products grown in any medium except soil; products shipped by air or treated with microwaves, radiation or gases; products that contain any genetically modified ingredients; and those that come from intensively fattened animals. The closer to "home" the product's origin, the more preference it is given, all else being equal.

Figure 1 shows one economic effect of the Naturaplan label: organic farming in Switzerland took off shortly after the label was introduced.

Flagship label sales have risen dramatically in recent years, as can be seen in **Figure 2**. Naturaplan is the strongest performer among the four labels. Coop has become Europe's top seller of organic foods and fair trade products, and the world leader in sales of organic cotton. Flagship label products' high degree of credibility, and their contribution to Coop's image, have made it clear that they are good business. Indeed, in December 2001 (two years earlier than planned) these labels broke the sales barrier of CHF 1 billion (and practically the entire staff toasted the achievement with Naturaplan sparkling wine).



Coop Naturaline – picking cotton in India

Naturaplan accounted for over half the refrigerated fruit juices sold at Coop in 2001, over three-fourths of the croissants and 90% of the vegetable juices. Other product segments with high Naturaplan shares include pasteurized milk (43%), carrots (30%), table butter (36%) and flour (32%).

In late 2000 Coop instituted a code of conduct for all its textile product suppliers, with a "fast track" for suppliers of Naturaline products. Coop's next aim is to have the Naturaline textile assembly companies be certified for SA 8000, the international workplace standard administered by Social Accountability International. Naturaline textiles now account for more than 35% of all cotton products sold at Coop; for babies' and toddlers' underwear, the share is 87%.

The entire Naturaline textile chain is monitored by independent institutes: bio.inspecta for organic farms; the Société Générale de Surveillance for processing; and external laboratories (along with Coop's own Quality Assurance Department) for contaminant limits. Independent experts also make sure that Naturaline cosmetic products meet Coop's requirements.

In terms of turnover, Coop is the largest provider of fair trade food products certified by the Max Havelaar Foundation. The Cooperación/Max Havelaar label represents a partnership between Coop and the Max Havelaar Foundation (Switzerland). Its objectives are to offer Swiss consumers an opportunity to directly support fair trade, to offer producers in developing countries a real opportunity to sell products on the Swiss market, and to promote products that produce benefits in terms of development policy.

The concept is simple: products in this line are bought from developing country producers at guaranteed minimum prices. The Max Havelaar logo guarantees that:

- ♦ prices paid to producers safeguard their livelihood;
- ♦ supply contracts are for no less than one year;
- ♦ purchase quantities are guaranteed, sometimes with advance payments;

♦ raw materials come exclusively from selected groups of producers; and
♦ the fair trade premium is used democratically to improve farmers' living and production conditions.

The idea of fair trade products began largely with social aims, but the environmental component has been gaining increasing importance. The small farmers with whom the Max Havelaar Foundation has traditionally dealt have less trouble converting to organic methods than do large industrialized producers. Organic cultivation also means an extra premium for farmers. Coop's Cooperación/Max Havelaar line now includes organic bananas, coffee, cocoa and chocolate powder.

Moss roses from Kenya were launched under the Max Havelaar label in the spring of 2001. They proved so popular that long-stemmed roses were added. Now around 90% of the roses sold at Coop come from the Cooperación line, as do 30% of non-organic bananas. In January 2003 pineapples were added (soon to be joined by mangoes), along with Ecuadoran long-stemmed roses. (For more information, see *www.maxhavelaar.ch.*)

Finally, products carrying the Oecoplan label must offer special environmental value added, be of high quality, carry tangible benefits, and meet a real consumer need. The value added must be obvious to the consumer, easy to communicate, and verifiable. When a recognized label exists, such as the FSC label or Bio bud logo, the Oecoplan standards are based on those guidelines. As with Naturaplan and Naturaline, compliance with the guidelines is monitored both internally and externally.

Over half the home freezers sold at Coop carry the Oecoplan label; the share is 60% for building materials and hobby timber. Other ranges with sizable Oecoplan sales shares are seedlings (31%), paper towels (30%) and toilet paper (25%).

At Coop we see the flagship labels as representing the lifestyle of the 21st century. Our vision in this area includes several objectives:
1. making a commitment to the environment (and to the well-being of animals and people) part of the corporate culture;
2. achieving market leadership in products with an environmentally and socially compatible profile;
3. promoting long-term thinking and action rather than short-term maximization of sales;
4. increasing the flagship labels' value as an important sales driver and decisive image factor; and
5. last but not least, increasing their sales to CHF 2 billion a year by 2010.

Case study: organic cotton production in India and Tanzania

In 1991 Patrick Hohmann, head of the Swiss yarn trading company Remei AG, and Mrigendra Jalan of the Indian spinning mill Maikaal Fibres proposed to cotton farmers in Maikaal, central India, that they go organic.

Oecoplan products

To help offset the risks to farmers that the transition from chemical fertilizers and pesticides entailed, the fledgling bioRe project offered two big pluses: financial assistance from the bioRe Foundation and a guaranteed buyer, Maikaal Fibres itself.

Two years into the project, Maikaal bioRe Ltd. had 530 farmers producing some 545 tonnes of raw organic cotton. In 1995 Coop switched its Naturaline textiles to all organic cotton, and Maikaal Fibres became one of its key suppliers. Today production is at 3000 tonnes and there are 1120 farmers.

The farmers have been attracted to the project by several advantages. For example, their product carries a 15-20% price premium, and organic farming allows them to break the vicious circle of indebtedness that buying chemical inputs so often involves.

Moreover, in line with the guidelines described above, farmers' working conditions improve. Their health improves as they stop working with chemicals and start growing organic vegetables for their own families (and to sell) in gardens associated with cotton fields. In the longer term, soil and water quality also improve.

Most recently, the farmers can become part owners and managers of Maikaal bioRe. And the bioRe Foundation, to which Coop contributes, has helped build a school and finance irrigation and biogas systems.

In 1994 bioRe extended its organic cotton operations to Meatu, Tanzania. Today that project is a private-public partnership with the German development agency GTZ, the German engineering firm Unionmatex, and the Tanzanian government. As in India, farmers receive training in organic methods and help in getting certified. Once again, their sales are largely guaranteed, mostly at above-market prices. In 2002 Meatu had 750 organic cotton farmers, with a total output of 1200 tonnes.

At the World Summit on Sustainable Development in Johannesburg, Remei and Coop jointly received one of the World Summit Business Awards for Sustainable Development Partnerships. (For more information, see *www.remei.ch.*)

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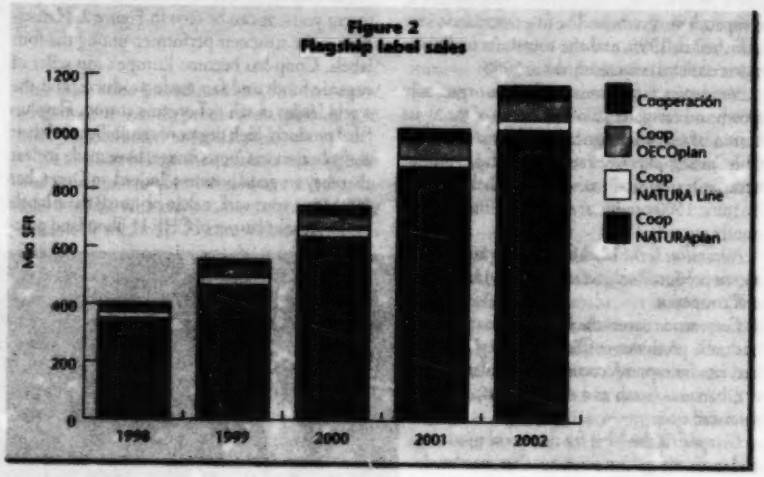
Figure 2
Flagship label sales



Safeway UK's sustainability strategy: involving employees and customers

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Safeway is the fourth largest supermarket chain in the United Kingdom, with 480 stores nationwide generating annual sales of around £9 billion plus 50 forecourt convenience stores, operated in partnership with BP.

Safeway's first corporate social responsibility (CSR) report appeared on the company web site in February 2002 (www.safeway.co.uk; click on Company Information). While Safeway has carried out environmental reporting in the past, the latest report represents a new commitment to publish regular CSR information. Safeway is determined to continue improving its CSR performance. It is delighted to be included in such indices as DJSI, FTSE4Good and the Morley Fund Management Sustainability Matrix. The company also scored AA+ with the Safety and Environmental Risk Management rating agency, the best ranking in the retail sector.

Safeway's sustainability strategy is driven by its CSR vision ("to be recognized as a business which strategically balances social, environmental and economic priorities with our long-term brand development"). This strategy is underpinned by the overall environmental management policy. It is supported by a number of other specific policies, and implemented via strategies to deliver on these policies. Each year the business defines its key objectives and the targets needed to enable it to meet those objectives.

For Safeway, CSR is about understanding the interrelationships between business aspirations and operations and the economy, communities and environment within which the company operates. Safeway recognizes that its CSR strategy can contribute to value creation by helping to manage costs, minimize risk and identify new opportunities. Good CSR management also helps protect and enhance the brand

Defining annual priorities (including objectives and targets) drives our improvement efforts and is the basis of annual reporting on progress. The setting of priorities is achieved in a number of ways, including monitoring of customer and employee concerns. Customer enquiries are handled by the customer relations department, whose responsibilities include responding to enquiries and briefing relevant parts of the business on the need to deal with the issues raised.

Safeway also runs a major research programme to monitor customer perceptions of the company. This programme involves interviews with customers in all stores. The results are communicated to store managers, giving them clear guidance on what their customers like and what needs to be improved.

Twice a year shoppers are surveyed to monitor their level of interest in various CSR issues. This helps the company develop specific CSR initiatives. We also monitor customer demand for products, with trials and roll-out where appropriate.

Safeway employs some 92,000 people in its stores, depots and offices across the UK. Our employment policy focuses on providing fair treatment for all employees, investing in their development, protecting their well-being, and keeping them informed and involved.

The company conducts six-monthly colleague surveys to enable it to assess and then act on a number of issues, not least those pertinent to CSR. It holds regular "Meetings for Everyone" (videoconferences with links to remote sites) at which the performance of the business is thoroughly discussed by members of the Executive Board and the Operations Board and questions from all employees are welcomed. CSR progress is also communicated via monthly employee newsletters, intranet and e-mail.

Each division has a "CSR Champion". For example, in the Supply Division it is the Supply Effectiveness Controller and in the Retail Division it is the Operations Manager. The Champions serve as an interface between the business, the Strategy Manager – CSR, and the CSR Steering Group. This process helps assure delivery of a robust CSR strategy.

The Champions are currently carrying out CSR Risk Self Assessments with their divisional colleagues. This effort, which is additional to Safeway's annual corporate risk identification and management review, will lead to the setting of CSR objectives and targets for 2003/4.

After consultation with stakeholders, including customers and employees, Safeway set CSR objectives (with associated targets) for 2002/3 in the following key areas:

- environment (product stewardship and operational effectiveness)
- nutrition
- ethical trading
- employment and training
- community involvement
- stakeholder engagement
- health and safety

Customer and employee interest in sustainability issues helps Safeway to remain focused on key issues and to make continued improvements.

Product stewardship

Safeway offers customers a range of products with reduced environmental impacts. These include organic products, products governed by Integrated Crop Management protocols, recycled goods, non-peat plant potting materials, locally sourced and regional products, free range/outdoor-bred pork, liquefied petroleum gas (LPG), wood products certified by the Forestry Stewardship Council, and products that meet fish sourcing standards. There are also phase-out programmes for certain chemicals in products. The ability to offer choice depends on customers' interest in these alternatives, and on efforts by the technical and trading teams to work with suppliers to improve the offering.

Research by the company's horticultural technologist and suppliers enabled Safeway to introduce peat-free household plant baskets last year. The use of composted wastes such as straw and coir, rather than peat, helps reduce use of peat and increase demand for recycled products.

A trial effort to use local flour in making bread was so successful that the offer was recently expanded to 350 stores, making this the first range of local bread to be nationally stocked in a supermarket. The wheat comes from five main regions: the Cotswolds, the mid-Shires, the north Shires, Wessex and East Anglia. Stores located in non-wheat growing regions, such as Wales, Scotland and the West Country, sell a range called Country Bread made from 100% UK wheat. Similar local sourcing has been achieved for meat and dairy products.

Teamwork

Teamwork, along with passion for Safeway as a brand, is an important component in the company's efforts to demonstrate that sustainability is a culture. Teamwork has played a major role in helping three Safeway Regional Distribution Centres achieve ISO 14001 accreditation. A further three depots aim to achieve this status by June 2003.

Safeway operates a decentralized culture when it comes to stores and their involvement in the local community. The head office provides guidance, but local initiatives are developed and driven by individual stores.

The Chester store is actively involved in demonstrating the company's CSR strategy at local level in the Chester area. The store manager is a member of the Chester City Fair Trade Committee. Chester was the first Fair Trade City in the country. It has now expanded its remit to promote local produce and locally produced goods. The local hospital recently launched a new transport policy in a bid to reduce traffic congestion; the Safeway store participates in a related Park and Walk programme.

Employee participation is encouraged via feedback from colleagues involved in new initiatives. For instance, Safeway began to invest in compressed natural gas delivery vehicles in 1998. By March 2003, 11.5% of the fleet will be compressed national gas (CNG) fuelled. An important part of the programme has been regular feedback from drivers. Safeway uses the cleanest, quietest vehicles on the market and replaces its lorries every three years. The commitment to invest in CNG provides further impetus to this element of the company's transport policy.

Safeway is determined to be part of the sustainability solution and to show its employees and customers that commercial and sustainable practice can be one and the same. Ensuring that the Safeway brand is recognized as a reputable and responsible one is a necessary part of this effort.

The METRO Group takes responsibility for sustainable development: examples of good practice

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Summary
The METRO Group, one of the world's leading retail companies, has locations in 26 countries. The Group's business strategy aims at sustainable, profitable company growth. In its first sustainability report (published in the spring of 2002) many of the Group's sustainable development related activities were highlighted. Intelligent logistical systems and extensive waste management initiatives are among the Group's environmental strengths. Worldwide purchasing guidelines and measures that emphasize food safety are two of the ways in which customer demand for products meeting social and environmental standards is met. All METRO Group's sustainability objectives, as documented in its sustainability report, will eventually be achieved only if customers are well informed and employees are motivated and adequately trained.

Résumé
Le groupe METRO, l'un des leaders mondiaux du commerce de détail, est implanté dans 26 pays. Sa stratégie commerciale vise à permettre une croissance durable et rentable de l'entreprise. Dans son premier rapport sur le développement durable (publié au printemps 2002), il présente la plupart des activités du Groupe en rapport avec le développement durable. Des systèmes logistiques intelligents et de nombreuses initiatives de gestion des déchets sont quelques-uns des points forts du Groupe dans le domaine de l'environnement. Des lignes directrices applicables dans le monde entier pour les achats et des mesures mettant l'accent sur la sûreté des produits alimentaires sont deux exemples des moyens mis en œuvre pour répondre à la demande du consommateur en produits respectueux de critères sociaux et environnementaux. Mais les objectifs du Groupe METRO en matière de développement durable, tels qu'ils sont exposés dans son rapport, ne pourront en fait être atteints que si les consommateurs sont bien informés et si le personnel est motivé et correctement formé.

Resumen
El Grupo METRO, una de las principales compañías mundiales de venta minorista, tiene filiales en 26 países. La estrategia comercial del Grupo tiene como objetivo un crecimiento rentable y sostenible. En su primer informe de sostenibilidad (publicado en la primavera del 2002) se hizo hincapié en muchas de las actividades relativas al desarrollo sostenible del Grupo. Los sistemas logísticos inteligentes e iniciativas extensivas de gestión de los desechos, son unos de los puntos fuertes del Grupo desde el punto de vista ambiental. A nivel mundial las directrices de compra y las medidas que hacen hincapié en la calidad de la alimentación, son los aspectos que les permiten satisfacer la demanda de los consumidores por productos que estén de conformidad con las normas sociales y ambientales. Todos los objetivos de sostenibilidad del Grupo METRO, tal como están documentados en su informe de sostenibilidad, podrán eventualmente ser alcanzados sólo si sus clientes están bien informados y si sus empleados están motivados y adecuadamente formados.

Today a company's success can no longer be defined by economic results alone. As an international trading group, we perceive ourselves as an active member of society wherever we are present. In our day-to-day work, ecological and social factors play an important role next to economic considerations. This means that not only do we try our best to satisfy our customers and to motivate our employees, but we also make a stand for society at large.

As one of the leading international trading companies, METRO Group operates in 26 countries. Thus it faces a worldwide challenge to contribute to society's sustainable development. We take this responsibility seriously and search for contacts with all our stakeholders. On many levels we are in touch with employees, ask customers to engage in a critical dialogue, and communicate with suppliers, shareholders or associations. This multi-layered and continuous dialogue enables us as a company to help shape markets, policies, and therefore society in a sustainable manner.

We are aware of the manifold challenges presented by the strategic goal of sustainability. At the same time we know that measures taken so far represent only a beginning. Our first sustainability report, published in 2002, documents progress achieved so far and the challenges to be met in order to move closer, step-by-step, to the goal of sustainability in trading.

METRO Group's strategy aims at sustainable, profitable company growth. In the financial year 2002, the Group achieved total sales of 51.5 billion euros (4.0% above the previous year). At sites in countries outside Germany, sales were 23.8 billion euros. This means the company achieved 46.3% of its total sales abroad. Worldwide, the Group employed over 240,000 people and about 10,000 trainees at 2310 sites.

Dialogue with stakeholders

Open dialogue with all stakeholders is an important part of corporate policy. Among its stakeholders the Group counts its employees, customers, shareholders and suppliers as well as political, ecological and cultural interest groups and the public at large.

Consumers vote every day with their shopping carts on the success of METRO Group and other retail companies. Three questions are increasingly gaining importance:

- Were the products on the shelves produced in a socially and environmentally compatible way?
- Does the company itself behave in a socially responsible manner?
- Is the company taking an active part in protecting the environment?

METRO Group and its outlet chains face these consumer questions head on. The Group is open to public discussion with other stakeholders on the social, economic and ecological responsibility of industry.

Seeking dialogue with the customer

Our Real hypermarkets use various instruments to improve customer satisfaction, such as the Real coffee table. This event, which takes place in the sales area near the checkout counters, gives customers an opportunity to express their wishes, criticism or praise directly to store employees. This increases awareness of customer needs. In implementing customer wishes, the regional customer marketing team works with the respective

hypermarket store. Based on a catalogue of measures, improvement suggestions are worked out and training courses held. The efficiency of these measures is evaluated with the help of the customer monitor, a representative survey.

Purchase guidelines

Metro sees guaranteeing social standards worldwide to respect human dignity, guarantee fair wages and improve social conditions as the basis of successful entrepreneurial action. For this reason, MGB (METRO Group Buying GmbH) supports standardized rules of conduct for procurement of goods. As a member of the Außenhandelsvereinigung des Deutschen Einzelhandels (AVE, German retailers' association of foreign trade), it has defined (together with other companies and associations) a far-reaching Code of Conduct. The wording of the Code of Conduct was based on the conventions of the International Labor Organization (ILO). The regulations in the Code are components of the purchase agreement that MGB suppliers sign. When signing, these suppliers commit themselves, among other things, not to manufacture their goods using child, slave or prison labour. AVE regulations further stipulate that employees should be paid according to national standards, and that their health should not be endangered at the workplace. The Code of Conduct also bans discrimination based on race, colour of skin, sex, religion, political views or social background.

METRO's organic range

In 1996 METRO Group introduced organic products in its sales divisions using the trademark *Grünes Land* (Green Country). It has since successfully expanded this segment. All products in the organic range are supplied by controlled ecological agricultural businesses and meet the stringent requirements of the EU Regulation on Organic Farming. Furthermore, many products meet the even more stringent requirements of the organic food associations (Bioland/ Naturland) and are certified by them. Independent experts control adherence to the strict guidelines on a regular basis. The number of organic, unprocessed *Grünes Land* products almost doubled within one year, from just under 130 to more than 230 in 2001. Sales have almost tripled, from about 8 million euros in 1996 to 22.4 million euros in 2001. The *Grünes Land* range comprises most types of food, from corn flakes to meat, vegetables, pasta and yoghurt.

Environmentally compatible action

Environmental protection, an important element of sustainability, is firmly rooted in METRO Group. Together with the managers in charge of environmental issues at individual sales divisions, the environmental management unit at METRO AG group level developed group-wide environmental guidelines in 1997 (**Table 1**). Ecological guidelines for packaging have also been developed (**Table 2**).

The priorities are sparing use of resources and avoidance of danger to the environment in all areas, from transportation of goods to packaging to sales mix policy and facilities management. The environmental guidelines are addressed to employees and involve suppliers as well as customers, as environmental protection can be successful in the long term only if an integrated approach is used.

Table 1
METRO AG'S environmental guidelines

Environmental protection is an obligation
The environment is a finite, collective asset and not at our unlimited disposal. METRO Group accepts its responsibility to protect the environment. This means using resources sparingly, minimizing risks to the environment and preventing harm.
Environmental protection is a key to the future
Environmental protection is of basic importance for the preservation of natural resources. We expect each individual in his/her sphere of responsibility to protect the environment as far as possible by adopting an environmentally beneficial approach and acting accordingly.
Environmental protection is tied to state-of-the-art technology
For our merchandise mix and our internal use, we select those products which exclude or at least minimize pollution during their production, use/consumption and disposal, and satisfy the customer's wishes. With ideas, enterprise and innovation, we can all contribute to ecological progress.
Environmental protection is a management task
Environmental responsibility at all levels can only be consistently exercised if it becomes an integral feature of a living corporate philosophy. We take measures and initiate programmes to motivate all employees to act ecologically.
Environmental responsibility must be shared
Ecological action must be practised first within our own organization. We involve customers, suppliers and the entire public in our efforts, as only if we act together can we be successful. We aspire to integrated, holistic solutions that make macroeconomic as well as business sense.
Environmental management is a strategic task
Environmental protection is a source of opportunities and risks for our company. We wish to identify and exploit competitive benefits and thus make an additional contribution to corporate success.

Intelligent logistics concepts

Spanning the Group, the cross-divisional service company MGL is in charge of organizing and carrying out goods transport for all sales divisions. Since 1995 MGL has realized the principle of procurement logistics, thus introducing a novelty in the trade: all shipments are picked up at the same time with the same truck at the supplier, irrespective of which METRO sales division the consignee is – whether Metro Cash & Carry (wholesale), Real (hypermarkets) or Media Markt/Saturn (consumer electronics). The different goods are transported together to the consignee in one truck. The transport vehicles' loading capacities are used optimally.

In 2001 MGL saved a total of 60 million tonne-kilometers through pooling goods transported by truck, a reduction of 20% compared to the previous year. Not only is this to the advantage of METRO Group, but it also benefits the environment: in 2001 CO_2 emissions from goods transport declined by 7100 tonnes, or 18% compared to 2000. The reduction in transport volume also meant fewer traffic jams, less noise, and a reduction in road usage.

Promotion of returnable packaging

The cross-divisional service company MDL increasingly supplies the Real hypermarkets and Extra supermarkets with returnable containers such as milk boxes, freezer boxes, flower containers, yoghurt containers, pickle and sauerkraut barrels, egg cartons and banana crates. For fruit and vegetables, internationally standardized returnable plastic folding boxes are frequently used. Altogether, MDL uses about 10 million returnable packaging units annually to deliver goods, not including pallets. This saves 9.6 million metres of stretch foil and about 10,000 cubic metres of packaging waste.

Recycling of one-way packaging

In cases where disposable packaging cannot be avoided, Metro emphasizes recycling options. One-way transport packaging is recorded separately for each outlet chain. This task is successfully coordinated by the cross-divisional service company METRO Group Facility Services (MFS): in 2001 only 5% of the just under 272,000 tonnes of waste in Germany was residual waste for disposal, ten percentage points less than even two years earlier. This means that 95% of METRO Group's waste was reused. In 2001 almost half of that waste was paper, paperboard, and cardboard (PPC).

In Austria, France and Poland, MWCS has also implemented its environmental concept, always taking into account the special features of each country. MFS operates in a consulting capacity in Croatia, Greece, Hungary and Luxembourg.

Metro has done pioneering work in Poland. Today 84 Polish Metro locations prioritize waste separation, an important incentive to the local disposal and utilization industry. In 2001, for example, 14,900 tonnes of PPC and 1250 tonnes of synthetics were recycled by Metro in Poland.

Communication on environment

Further training and information events, employee newspapers and other media are helping make environmental measures more transparent for employees. Environmental protection is firmly anchored in various publications of the sales divisions in the METRO Group, for example in the customer magazine *Metro C+C Clubpost* as well as in the employee magazines *extra ist okay*, *Wir vom Praktiker* and *Kaufhof Intern*. On *K-TV*, the in-company television station of Kaufhof AG (department stores), environmental issues are dealt with in discussions or reports for employees.

Employees shape METRO Group

High performance, speed and efficiency determine our actions. We see change as an opportunity rather than a risk. Openness, trust and personal esteem characterize our working together. We see objective differences of opinion as a starting point for solutions agreed by all. We challenge our employees' professional and social competence

and promote responsible work efforts.

Our employees are the guarantee for our company's success. We promote and offer permanent learning, so as to be faster and better than our competitors. We offer a great variety of national and international career opportunities to efficient employees throughout the Group.

Employees all over the world need uniform standards used in the entire Group. Those standards can be developed and implemented only if there is a smooth and rapid exchange of information across borders. All employees must have up-to-date information available to them at all times. Electronic applications offer many solutions being used in METRO Group.

A borderless communication platform

Employees at almost all functional levels of Metro Cash & Carry have worldwide access to an up-to-date version of their company's core know-how in the digital "House of Knowledge."

Many information and communication instruments support international exchange of experience. Instruments such as virtual courses and project rooms help colleagues pass on knowledge across borders, cooperate efficiently, and learn from each other. In this way the "House of Knowledge" contributes to further stabilization of the company's leading international market position in wholesale trading.

In its pilot phase the "House of Knowledge" proved itself in Italy and Belgium. Testing also went well at the Metro Cash & Carry head office in Germany. Introduction of this new knowledge management system in the other 19 countries with Metro wholesale outlets has already begun.

Passing on expertise

Polish school reforms in 2000 opened the way to taking knowledge of modern trade into trade schools which earlier had focused on a more general education. That same year the project *Metro Edukacja* was launched. In collaboration with Polish trade schools and the Bildungszentrum des Einzelhandels Sachsen (BZE, training centre of retail trade, Saxony), METRO Group drew up training content and has been organizing company internships. Interns obtain experience at Metro Cash & Carry, Real and Praktiker (home improvement) outlets. The project is carried out in six trade schools in Poznan, Lodz, Czestochowa, Warsaw, Zabrze and Kielce. A total of 270 pupils are involved.

By 2005, METRO Group will include 30 operating sites with a total of 1000 trade school students in its *Metro Edukacja* project. In this way the Group invests in future recruits for the Polish trade sector. In addition to knowing the country and developing appropriate merchandising concepts, economic success requires recruiting and training of qualified personnel.

Table 2
METRO Group's ecological guidelines for packaging

- As little packaging as possible.
- Produced with environmentally compatible materials and preferably composed of a single material.
- If more than one type of packaging material is necessary, clean separation must be possible.
- If there is no alternative to plastics, PE, PET and PP are to be employed.
- The type of plastic must be indicated.
- Polystyrene should be avoided; filling materials must be recyclable.
- Adhesives must not contain solvents.
- Paints containing heavy metals and/or solvents must not be used.
- Design and dimensions of packaging must permit full utilization of transport capacity.

Trainee social commitment

Every year METRO Group supports a different non-profit project. About 25 capable apprentices from the six Metro sales divisions volunteer to work for a good cause for two days. This way the young adults not only gain expertise in their chosen field but have hands-on experience in social competence, self-confidence and team spirit. These qualities are of great importance for their personal and professional development.

Furthermore, the trainee social commitment project creates networks of apprentices in the various sales divisions. METRO Group's goal with respect to these projects is to demonstrate the value it attaches to social awareness.

Standing up for socially disadvantaged persons

Since 2000 the Metro Cash & Carry stores, Real hypermarket stores and Extra convenience stores have collaborated with the initiative *die Tafel* ("the table"). Excess foodstuffs are made available to the needy free of charge. The cross-divisional service company METRO Group Facility Services (MFS) organizes this nationwide cooperation between Metro Cash & Carry, Real, Extra, and *die Tafel*. In their local environment employees of the 220 independent *die Tafel* projects distribute foodstuffs to needy people all across Germany.

By handing out free food to *die Tafel*, METRO Group not only helps the socially disadvantaged. It also helps create employment in the second labour market subsidized by the government. These subsidized jobs in *die Tafel* projects offer employees an opportunity to switch over into regular non-subsidized employment. ◆

Balancing the triple bottom line: the human face of sustainable business at Pick 'n Pay

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Summary
Sustainable development in the 21st century must incorporate a dedicated approach to training and education for employees and communities. Informed, responsible and knowledgeable consumer choice helps achieve sustainability through the market via a triple-win: improving quality of life for consumers, reducing environmental and social impacts, and increasing the market share of sustainability-minded companies. The Pick 'n Pay Group sees sustainable economic growth as the prime responsibility of ethical business practitioners. In pursuing the twin objectives of economic growth and sustainable development, the company recognizes that socio-economic growth and environmental protection are inextricably linked, and that people's quality of life cannot be improved at the cost of environmental destruction. Conservation projects involving both employees and community-based organizations are intrinsic to Pick 'n Pay's corporate social responsibility programme. Addressing HIV/AIDS within the company (and in society) is one of the main objectives of Pick 'n Pay's corporate social responsibility programme.

Résumé
Au XXIe siècle, le développement durable doit englober une approche spécifique de la formation et de l'éducation des salariés et des communautés. Des choix de consommation éclairés, responsables et pertinents permettent de parvenir au développement durable en laissant jouer les mécanismes du marché et ce, parce qu'ils présentent un triple avantage : celui d'améliorer la qualité de vie du consommateur, de réduire les impacts environnementaux et sociaux, et d'augmenter la part de marché des entreprises soucieuses du développement durable. Pour le Groupe Pick'n Pay, favoriser une croissance économique durable est la responsabilité première des praticiens du commerce éthique. En poursuivant le double objectif de la croissance économique et du développement durable, il reconnaît que la croissance socio-économique et la protection de l'environnement sont étroitement liés et que la qualité de vie des gens ne peut être améliorée au prix de la destruction de l'environnement. Les projets de conservation impliquant le personnel et des associations locales font par nature partie du programme de responsabilité sociale de Pick'n Pay, dont l'un des principaux objectifs est de s'attaquer au problème du SIDA à l'intérieur de l'entreprise (et dans la société).

Resumen
El desarrollo sostenible en el siglo XXI debe incorporar un enfoque específico para formar y educar a sus empleados y a las comunidades. Informado, responsable y conciente, la selección del cliente ayuda a lograr la sostenibilidad a través del mercado, vía aspectos positivos triples: mejorar la calidad de la vida de los consumidores, reduciendo las repercusiones ambientales y sociales y aumentando la parte en el mercado de las compañías que tienen objetivos sostenibles. El Grupo Pick 'n Pay concibe el crecimiento económico sostenible como la primera responsabilidad para los que practican un comercio ético. Teniendo presente estos dos objetivos de crecimiento económico y desarrollo sostenible, la compañía reconoce que el crecimiento económico y la protección ambiental están estrechamente vinculadas y que la calidad de la vida de la gente no puede ser mejorada a costo de la destrucción ambiental. Los proyectos de conservación en los cuales participan tanto los empleados como las organizaciones basadas en la comunidad, son intrínsecos de la responsabilidad social empresarial del programa de Pick 'n Pay. Ocuparse del VIH/SIDA en la compañía y en la sociedad es uno de los principales objetivos del programa de responsabilidad social empresarial de Pick 'n Pay.

The Pick 'n Pay Group was founded in 1967. One of Africa's largest retailers of food, clothing and general merchandise, it operates throughout South Africa and in several other southern African countries and recently expanded into Australia. Its three divisions (Retail, Group Enterprises and Franklins Australia) operate some 400 stores. A further 139 are franchised. The Pick 'n Pay branded businesses are hypermarkets, supermarkets, the Family Stores franchise, the Mini Market franchise and Home Shopping. Other brands include Score Supermarkets, Boardmans, TM Supermarkets and HealthPharm Pharmacies. Supermarkets account for the major share of the group's activities. Turnover in the 2002 fiscal year was Rand 18.1 billion. The Pick 'n Pay Group has 35,000 employees.

The dawn of a new century has brought with it the realization that concern for the environment is no longer a single, isolated issue. It *is* the context of our lives – and that of our business. Businesses in the 21st century are founded not only on economic value, but also on social and environmental values; the challenge lies in how we balance the triple bottom line.

Eco-efficiency

The concept of eco-efficiency has encouraged Pick 'n Pay to shift from maximizing sales to not selling *things* at all – and being cleaner and more profitable in the process. Instead of products, we sell services. In so doing we improve the bottom line through improved delivery rather than increased sales. In the words of Pick 'n Pay CEO Sean Summers, "we engage our consumers, not only through the products we sell but also through the experience we deliver. Our business is best summed up as an accumulated experience over a period of time, and the embedded feeling that the consumer has towards us as a company and our conduct, morals and ethics."

Heartland

In terms of sustainability, our focus at Pick 'n Pay is on looking after the organization's heartland – what we currently *have* rather than what we aspire to. At Pick 'n Pay, trading in South Africa and its neighbouring countries, we are conscious that the social aspect of sustainability is fundamental to contributing to changing the status of a developing country to that of a developed one.

Integrating values

At Pick 'n Pay we have heeded the call of the World Summit on Sustainable Development, held in Johannesburg in 2002, to enhance corporate environmental and social responsibility. We believe that the aim is to optimize markets so that the company can help promote and sustain the triple goals of social equity, economic prosperity and environmental integrity. While all three underpin the notion of good corporate citizenship, they in turn are dependent on business self-interest for their accomplishment. We intend to show how Pick 'n Pay faces this challenge through business strategies and actions designed to help the company achieve its sustainability goals by putting communities and the environment first, and in so doing creating a successful business.

Eco-efficiency creates more value with less impact. It enables more efficient production processes and the creation of better products and services, while reducing resource use, waste and

pollution along the entire value chain. These factors are all inherent in the following strategies relating to transport systems, refrigeration, energy and lighting, packaging and product technology.

Transport systems

Due to the widespread siting of its stores, Pick 'n Pay has allocated the transportation of both refrigerated and dry goods to two major transport companies, one operating in the Cape while the other services Gauteng and other northern areas.

These companies were selected for the excellence of their operations with regard to efficient routing systems, as well as their attention to reducing CO_2 emissions. Route efficiency is benchmarked on a ratio of the number of kilometres travelled compared with fuel consumption. Both companies have shown steady improvement in efficiencies relating to the number of stores serviced by a given number of vehicles.

CO_2 exhaust emissions are controlled by fitting a standardized fleet with diesel engines that comply with Euro2 emission standards. Emission controls effected by these engines far outstrip the minimum exhaust gas emission standards required by South African legislation and by the European Union. In 2002, with a view to minimizing emissions of exhaust gases, the transport company servicing northern areas gradually converted all refrigeration units driven by diesel engines to electric motors. Since 2001 all new additions to the fleet have been equipped with electrical refrigeration units.

Employees from the Northgate store take part in a river clean-up campaign

Refrigeration

Pick 'n Pay's commitment to addressing issues of global warming and ozone depletion prompted the installation of a *secondary refrigeration system* in its latest four stores. Intensive investigation preceded the eventual selection of the Swedish "SQD" or Soft Quick Defrost system, one that fitted the company's requirements in terms of energy efficiency, environmental impact, cost-effectiveness and layout flexibility. The use of a secondary system also facilitates the use of environmentally benign refrigerants such as ammonia.

A standard refrigeration system typically has one large circuit operating under high pressure and often using a large amount of refrigerant, which presents considerable risk in case of leaks. A secondary refrigeration system comprises a small primary high-pressure circuit, a secondary low-pressure circuit and a heat exchanger. The heat exchanger transfers the cold produced in the primary circuit to the secondary circuit containing a non-hazardous cold transfer fluid.

Based on a cold transfer medium of naturally stabilized organic salts free of amines or nitrites, the SQD system contains no substances that may be accumulated in living organisms. The fluids are non-flammable, non-toxic and non-corrosive. When diluted 50% with water, they may be released safely to an ordinary drain.

In terms of TEWI (total equivalent warming impact) relating to the system's effect on global warming, the SQD system represents a 60% decrease in relation to a conventional refrigeration system used in other Pick 'n Pay stores.

Since 1998, all new Pick 'n Pay stores have installed R404A refrigeration gas in compliance with international protocol and the imminent phase-out of HCFC22. Although existing plants continue to use HCFC22 for economic reasons for the remainder of the anticipated plant life of 15 years, it is expected that this generation of plant would be replaced by 2005.

The SQD system also presents savings in terms of energy by recycling "used" energy in the defrosting process. Accumulatively, energy savings of 15% are achievable over the conventional systems. "Comfort heating" of the stores' air conditioning system during winter is achieved by using waste heat rejected from the refrigeration system. This results in additional energy savings which are enhanced by the use of motorized "night blinds" that seal off upright cabinets after store closing.

Air-cooled condensers which replace more conventional water-cooled heat rejection equipment account for a saving of tonnes of this scarce resource, resulting in water savings for example in excess of 150 cubic metres per month per store using similar equipment.

Electrical energy

Economic as well as environmental factors govern Pick 'n Pay's efforts to control energy usage, as this aspect of its business accounts for expense in the region of 2% of turnover.

To this end, Pick 'n Pay has installed load-shedding panel-mounted energy control devices that manage electricity consumption efficiently in accordance with user-defined parameters. This instrument sheds loads so that maximum demand targets are not exceeded.

To minimize environmental impact, the reduction of actual kWh units is achieved through the control of usage by switching off heating tables and ovens and sealing when not in use; automatic lighting circuit control; photo cells or time clocks for external lights and signage; installation of roof insulation; optimum operation of refrigeration systems; and lighting systems which maximize energy-efficiency.

Lighting

Pick 'n Pay are in the process of converting to electronic ballasts that are the most energy-efficient systems available. A choke ballast ignites lamps, thereby reducing energy consumption.

Pick 'n Pay has installed the Col 21 triphosphor lamping system in most of its stores. These lamps guarantee that 90% of the original luminous flux is maintained even after 12,000 or more hours of operation. The triphosphor materials used guarantee a high luminous efficiency of up to 96 lm/W

An additional advantage of this lighting system is its adaptability, as no technical changes are required when modernising existing systems fitted with standard lamps. The higher luminous efficiency guarantees up to 30% more light; if used in conjunction with the Quicktronic electronic control gear, the Col 21 yields major advantages in terms of convenience, cost-efficiency and operational reliability. Over 90% of Pick 'n Pay stores have converted to the triphosphor lamping

system, while all new and refurbished stores have electronic ballasts.

Packaging

Pick 'n Pay recognizes that plastic carrier bags, currently issued free of charge in all its stores, impact negatively on the environment, especially in poorer areas where there is a lack of efficient garbage collection. To address this issue, the company has entered into a partnership with organized labour, government, and the chemical and plastics industries. The aim is to regulate the characteristics of plastic bags in order to minimize their negative impact on the environment.

Government regulations currently prohibit the manufacture and distribution of plastic bags less than 30 microns thick. To meet these requirements, the parties agreed on a downward tolerance of 20% on 30 microns over the next five years to allow current manufacturing equipment to be used.

This agreement between business, labour and government is due to be implemented at the beginning of May 2003. After that date, no free plastic bags will be given to customers. The full cost of plastic bags will be passed on to the consumer. Instead of subsidizing this cost, major South African retailers will user their savings on bags to reduce basic food prices as a way to compensate consumers.

Raymond Ackerman, Chairman and founder of Pick 'n Pay, congratulates Roger Solomons, a graduate of the company's training programme

Food safety

Food technologists based at the company's Food Distribution Centres work closely with buyers and suppliers to provide new and improved products in Pick 'n Pay's house brand range. They also liaise with regulatory bodies to ensure that products conform to legislation regarding labelling, quality and safety. Each product has a specification drawn up by the Category Technologist outlining all technical requirements to be adhered to, such as recipe and formulation, ingredients, processing standards and quality controls.

Organic produce

Selected Pick 'n Pay stores carry a range of organically grown fresh fruit and vegetables. The produce bears a certification symbol displayed on the packaging indicating that it has been produced according to certified organic methods, without artificial fertilisers, chemicals or pesticides. Pick 'n Pay believes that organic farming, which incorporates crop rotation, composting and the recycling of farm-produced organic material such as animal manure, protects our fragile environment by allowing the soil to rebuild its natural fertility.

Country-reared products

Today's consumers are becoming increasingly aware of animal welfare issues. It is therefore important to Pick 'n Pay that the foods they eat are produced as humanely as possible. In paving the way for country-reared meats and free-range chicken and egg products, Pick 'n Pay food technologists examined some of the strictest animal welfare guidelines in the world and formulated its specifications accordingly. Consequently, this range of products contains no hormones, growth stimulants or systemically administered antibiotics; animals and birds are reared in the open and no animal by-products are ever used in the feed.

Genetically modified foods

Many of Pick 'n Pay's customers have expressed concern about the impact that genetically modified ingredients in certain foodstuffs will have on them, their families and the environment.

While recognizing the contribution made by biotechnology to an improvement in the quality and nutritional value of food, company support for the responsible application of any advances in biotechnology will only be given once the safety of consumers and the environment have been scientifically verified. In an attempt to keep its consumers informed about genetic modification of foodstuffs, Pick 'n Pay is currently involved with government departments and suppliers in constantly monitoring the issue.

Upholding the consumer's right to make informed choices when purchasing products in its stores, Pick 'n Pay intends implementing the proposed labelling policy on foods containing genetically modified ingredients once it is legislated by the Department of Health.

Oil management project

The misuse of cooking oil is a major problem in South Africa, with adulteration and overoxidation of oil being responsible for the extensive degradation of frying oils to levels unheard of in more developed countries. In these countries, oils with a polar compound content in excess of 25% are regarded as unsafe since there is a high possibility of harmful breakdown products being present in the oil. Polar compounds are chemically produced carcinogenic substances created by overheating oil. Studies carried out at Bloemfontein University reveal that more South Africans die annually from liver cancer caused by ingesting impure oil than from alcohol abuse.

Pick 'n Pay believes it has a responsibility to ensure that consumers have the right to safe food. The company has therefore developed a policy for oil management in all its service departments and canteens, and a quality control system has been implemented to assist buyers in identifying mixing practices before any oils are listed for purchase. In addition, oil suppliers have to provide a certificate proving that their product has been tested according to acceptable scientific protocol.

Corporate social responsibility

Pick 'n Pay believes that sustainability is an issue of supporting the stakeholders which underpin its business. Included in this commitment is the "upliftment" of employees and communities, primarily through education.

In pursuing the twin objectives of economic growth and sustainable development, the company recognizes that socio-economic growth and environmental protection are inextricably linked, and that an improvement in people's quality of life cannot be obtained at the cost of environmental destruction. Conservation projects involving both employees and community-based organizations are therefore intrinsic to Pick 'n Pay's corporate social responsibility programme.

HIV/AIDS

Like any other communicable disease, HIV/AIDS impedes national and individual development and burdens economies with a huge cost of treatment and control. For this reason alone, addressing this issue within the company as well as in society at large is one of the main objectives of Pick 'n Pay's corporate social responsibility programme.

According to United Nations figures, an estimated 4.7 million South Africans are living with HIV and AIDS. With 1800 new infections occurring daily, UNAIDS estimates that South Africa has more people living with HIV than any other country. In addition, hundreds of children are being orphaned daily due to the epidemic, leaving grandparents to care for them, often in dire economic circumstances.

Most significantly for business, between 18 and 20% of South Africa's workforce is currently HIV positive and around 40% of employees will be lost

to AIDS over the next ten years. Approximately 30% of the country's workforce will be HIV positive in 2005, and by 2010 over 15% of highly skilled employees are expected to test HIV positive.

Given that the HIV/AIDS pandemic has emerged as one of the most urgent and pressing workplace issues of our time, Pick 'n Pay (in collaboration with the unions) has established an ongoing employee education and information programme designed to heighten awareness of the dangers of contracting the virus. Programmes comprise workshops, presentations by the company's peer educators, condom distribution and poster campaigns. Each store has a team of Peer-Educators to assist those in need of help and advice, either for themselves or for family members. Assistance offered to HIV positive employees includes free anti-retroviral medication for pregnant mothers and accelerated death benefits for those in the final stages of the disease.

Employees with HIV/AIDS are not victimised or discriminated against in any way. They have the right to confidentiality, and their status is not reflected in any form on company records.

Early in 2002 Pick 'n Pay announced the establishment of a R1 million Trust Fund to care for the orphans of any company employees who die from AIDS. According to latest estimates, over R2 million ($200,000) has been spent on training alone, to ensure that each and every Pick 'n Pay employee is equipped with the knowledge to fight the battle against the pandemic.

In an annual collaborative initiative with government, Pick 'n Pay stores countrywide commemorate World AIDS Day on 1 December. Dubbed *Khomanani* or "Caring Together", the fundraising drive is designed to assist fellow South Africans whose lives are affected by the disease.

The Ackerman Foundation

Established in 1999, The Ackerman Foundation is a trust providing opportunities for growth and development to deserving groups and individuals in the South African community. The Foundation has made R30 million available for community upliftment, in addition to the company's investment of after-tax profits in education, housing, social services and environmental conservation.

One of these initiatives is the *Siyazama* ("We Are Trying") project, which involves a group of rural women from Kwazulu-Natal who work towards economic empowerment by creating cultural artefacts. Their focus is on heightening the awareness of AIDS, which continues to ravage the province.

The Foundation has also provided valuable assistance to *Ikamva Labantu* ("People's Future"), a non-governmental organization which functions as an umbrella body for several community-based organisations. *Ikamva Labantu* programmes reach as many as 55,000 township community members annually through the establishment and support of badly needed facilities. These include day care centres, after-school programmes, youth centres, professional training centres, small businesses and centres for disabled children, senior citizens and displaced people.

The Masizame Child Welfare project, to assist the community of Gugulethu in the Western Cape to set up a food gardening project, is a partnership initiative supported by the Ackerman Foundation. Participants are taught how to grow vegetables with the dual purpose of supporting their families and generating an income. In Mamre, a small rural settlement near Cape Town, the Goedgedacht Trust assists farm labourers to preserve fruit and vegetable products and market them to the public.

The Foundation also assists many promising students who are financially unable to further their studies. Disciplines in which successful students have graduated include dentistry, medicine, commerce, music and engineering.

Vuselela

In 1996 changes were afoot in both the country and the company. A new government was in place under President Mandela and Pick 'n Pay's management board had been split into two separate divisions – Retail and Group Enterprises. It was time to re-energize the company and reaffirm the Pick 'n Pay values of human dignity and mutual respect. *Vuselela*, an African word meaning rebirth or renewal, was the name of the programme chosen to bring about that change. The fundamental challenge lay in improving human relationships within the company to provide better service to customers.

Winners of an in-house competition held to identify those employees at all levels in the organization who display genuine commitment to customer service go on an all-expenses paid trip to Disney World, where they experience a concept built on the fun of serving customers. This gives them the opportunity to observe theme park service professionals at work, before returning home to apply their knowledge and enthusiasm.

Empowering people

Part of the *Vuselela* thrust involved taking a closer look at Pick 'n Pay's 35,000 employees, an examination that revealed an illiteracy level in excess of 40%. Accordingly, countrywide literacy and numeracy programmes were introduced, culminating in graduation ceremonies to honour those who had completed their courses.

Pick 'n Pay's commitment to training and development continues, with 7000 employees currently enrolled in formal on-the-job courses. A total of 6100 people have graduated after rigorous tests and examinations, placing the company's employees among the most highly qualified in the retail industry.

Environment

Pick 'n Pay believes that healthy profits can only be generated by healthy communities. For that reason the company has taken into account not only the conservation of the natural environment, but a parallel and urgent need to address basic quality-of-life improvements in housing, health care, job opportunities and education. An environmental component is built into all community and employee upliftment programmes.

Pick 'n Pay's vision for a sound environmental future is therefore "To be recognized as the leaders in retailing who have made a real contribution to improving the quality of life of its stakeholders through environmental upliftment programmes which are driven by management and employees with community involvement."

The belief that the key to upliftment lies in education prompted Pick 'n Pay to launch its Enviro Facts project in 1990, in partnership with the World Wide Fund for Nature. Printed on recycled paper and distributed free of charge in stores countrywide, the fact sheets are currently used as an educational resource in schools and tertiary institutions. They cover a multitude of environmental issues including pollution and waste, water, global warming, deforestation and energy conservation.

"Green Teams" present in Pick 'n Pay outlets throughout the country participate in activities such as National Clean-up Week, World Environment Day, Arbor Day and Marine Day. These projects are frequently collaborative efforts with government, industry, schools and community-based organizations.

Pick 'n Pay believes that sustainable business practice is a *process* that involves cultural changes and changes in people's minds. Evolution, not revolution, is the keyword.

Our eyes and minds are therefore firmly fixed on the challenge of sustaining the triple goals of social equity, economic prosperity and environmental integrity. These sentiments continue to underpin all of Pick 'n Pay's business strategies, just as they have since its inception 36 years ago. ◆

The Ito Yokado concept of sustainability

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The Ito Yokado group is one of Japan's top ten retailers. It has nearly 15,000 employees, over 180 stores and a turnover of 1.5 trillion yen in the fiscal year ending in February 2002. Ito Yokado mainly operates "superstores," convenience stores and restaurants. Retail outlets include the York Mart supermarkets, the Robinson's Japan department stores, the Mary Ann women's wear boutiques, the Oshman's Japan sporting goods stores, and the Seven-Eleven convenience stores (mostly franchised). Ito Yokado also has three superstores in China.

For Ito Yokado, "sustainability" is an ideal that incorporates environmental issues, business ethics, compliance, corporate governance and corporate social responsibility. It is difficult to find a Japanese translation of "sustainability" that preserves the full meaning of the English term. We at Ito Yokado believe a company is "sustainable" only if it receives continuous support from various stakeholders, including shareholders, while remaining capable of continuously creating profit under appropriate and transparent management.

Ito Yokado has learned that environmental issues do not exist in a vacuum; to make a significant contribution requires collaboration in many related areas. Besides our corporate Environmental Committee, we have a Corporate Behaviour Committee that addresses internal matters such as legal administration, corporate governance, social responsibility and corporate ethics. We also have a Fair Trade Committee.

We feel that Ito Yokado can attain sustainability through incremental, year-by-year increases in levels of social responsibility and corporate ethics (as well as through securing sufficient annual operating profit each year). This is in addition to activities in the environmental arena. All these activities must be carried out in concert.

Ito Yokado began publishing its Environmental Report in 1995. In 2000 the title was changed to Sustainability Report and social aspects were incorporated.

The 2002 report, covering the 2001 fiscal year (to February 2002), is the first such Ito Yokado report to rely on the Global Reporting Initiative Guidelines. *Sustainability Report 2002* (available at *www.itoyokado.iyg.co. jp/iy/eco/index_e.htm*) includes a consolidated index of group CO_2 emissions based on data from the Ito Yokado group's four publicly listed companies. Although total CO_2 emissions increased by 3.9% compared with the previous year, reflecting growth in the number of stores and operating hours, CO_2 emissions per square metre per operating hour fell by 3.7%.

Ito Yokado also monitors water, electricity and gas consumption, packaging material use and waste generation, using set targets for each. All our stores nationwide collect and recycle bottles, cans, plastic bottles, food trays, milk cartons, used oil and food waste.

The section of the 2002 report on social aspects covers such widely varied issues as gender equality, sales floor design, fundraising activities, quality management and customer input. All suppliers receive our Corporate Behaviour Guidelines, which stress fair trade, respect for human rights and individual dignity, a non-discriminatory working environment and elimination of child labour. We also use several different multiple media to disseminate information to consumers about the activities of Ito Yokado.

The challenges include lack of consistency in the viewpoints expounded by various Japanese government authorities at both central and local level. This presents problems for all of Japanese industry. It would be useful for the government as a whole to establish a bridging entity to comprehensively examine the sustainability of the industrial world. For the present, however, we must continue to deal with lack of integration on the part of the authorities concerning the various issues involved in sustainability.

One of the most positive developments related to sustainability is the trend towards socially responsible investment. It is positive in two key ways. First, when shareholders judge our activities in terms of whether they are socially responsible, this helps us evaluate our own corporate behaviour. Second, the socially responsible investment movement underlines the importance of the economic element of sustainability. Obviously no corporate activity will last long without economic incentives.

At the end of October 2002, Ito Yokado participated in the Conference of the Association for Sustainable and Responsible Investment in Asia, held at United Nations University in Tokyo, in partnership with the UNEP Finance Initiatives. The conference had an important impact on Asian business, especially Japanese business, through the networks formed and the discussions held.

After a year marked by corporate scandals such as those of Enron and WorldCom in the United States, and food and electric companies in Japan, it is time to give serious thought to what corporate social responsibility really entails.

Musgrave Group: bringing sustainability to shoppers

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Summary

Musgrave Group was the first company in the world to publish a sustainability report "in accordance with" the 2002 Global Reporting Initiative Guidelines launched at the Johannesburg Environment Summit. These Guidelines are fast becoming the generally accepted, broadly adopted worldwide framework for preparing, communicating and requesting information about corporate environmental performance. Musgrave Group's unusual achievement is particularly notable in this context as it is a private company and therefore not legally required to engage with shareholders and stakeholders in this manner. The company has acknowledged that in undertaking its sustainability programme its aim is to make as much progress in economic and social as in environmental sustainability.

Résumé

Le Groupe Musgrave est la première entreprise du monde à avoir publié un rapport sur le développement durable en se conformant aux lignes directrices de 2002 de la Global Reporting Initiative lancées au Sommet de Johannesburg sur l'environnement. Ces lignes directrices s'imposent de plus en plus comme un canevas accepté par la majorité et largement adopté dans le monde pour préparer, communiquer et demander des informations sur les performances environnementales des entreprises. L'exploit du Groupe Musgrave est particulièrement remarquable dans ce contexte puisqu'il s'agit d'une entreprise privée qui n'est pas tenue légalement de s'engager à ce point envers ses actionnaires et partenaires. L'entreprise a confié qu'en lançant son programme de développement durable, son but était de progresser autant dans le domaine environnemental que dans le domaine économique et social.

Resumen

El Grupo Musgrave fue la primer compañía mundial que publicó un informe de sostenibilidad "de acuerdo con" las Directrices de 2002 de Iniciativas de Información Mundial, lanzadas en la Cumbre para el Medio Ambiente de Johannesburgo. Estas Directrices están siendo rápidamente aceptadas y ampliamente adoptadas en el ámbito mundial para preparar, comunicar y solicitar información sobre los rendimientos empresariales ambientales. El éxito inusitado del Grupo Musgrave es particularmente relevante en este contexto, porque es una compañía privada y por lo tanto no está legalmente obligada a comprometerse de esta manera con sus accionistas y participantes. La compañía ha comprendido que por la adopción de su programa de sostenibilidad , tiene como propósito realizar un máximo de progresos en el campo económico y social, lo mismo que en la sostenibilidad ambiental.

Musgrave Group has been one of the ten largest companies (by turnover) in Ireland for the last five years. It has been the country's second largest private company in the same period. The company is nearly 130 years old. It was founded in Cork, where its current corporate headquarters are still located. Company turnover in 2002 is expected to be around 3.5 billion euros. Musgrave Group is made up of a number of constituent business units, but it is concentrated on delivering wholesale and retail grocery solutions in Ireland, the UK and Spain.

In Ireland Musgrave Group consists of two distinct business units. Musgrave SuperValu-Centra (MSVC) is a grocery wholesale distributor and retail franchise operator, servicing only the SuperValu and Centra retail franchises – 560 independently owned shops across the country. Musgrave Cash and Carry is a wholesaler servicing over 30,000 businesses across Ireland from its ten outlets.

SuperValu and Centra combined have over 22% of the market share in the Irish grocery market. They constitute the only major grocery brand-retailer to have stores located in each of the 32 counties of the island of Ireland.

In 2002 Musgrave Group acquired ownership of Budgens Ltd, a chain of supermarkets and convenience stores based in the UK. This added a further 6000 people to its workforce of over 15,000 working in Irish operations.

Musgrave group has owned the Dialsur company in Spain since the mid 1990s. This business unit, based in the Alicante region, consists of over 100 supermarkets, with some 20 cash and carry (i.e. wholesale) operations. From 2003, over 30% of Group turnover will be achieved outside Ireland.

Environmental record

Over a number of years it had become increasingly clear to Musgrave Group's management team that the environment was becoming and would become as much of an issue to their business as quality, cost and supply. They could see that the legislative framework was becoming more prescriptive and challenging for the grocery retail sector, as well as for the perceived major polluters. They were receiving increased customer inquiries concerning this new legislation. Furthermore, the team saw that costs that had traditionally been stable were skyrocketing, for example waste management fees and insurance premiums. Musgrave Group embarked on their corporate responsibility programme by undertaking a comprehensive environmental review of 30 facilities. This review covered the range of operations in the Republic of Ireland and Northern Ireland in 1999. In this sample of facilities were included: distribution centres/warehouses, cash and carry (wholesale) outlets and supermarkets that ranged in size from 1000 to 30,000 square feet.

Arising from the impacts and issues for the business identified by the review, a corporate environmental charter was prepared and launched in November 2000. The charter was divided into six main areas of policy: Communications, Waste Management, Transport, Supplies and Products, Buildings and Reporting.

Implementation of the corporate environmental charter was initiated from 2001 and has proved extremely successful for the company to date. Musgrave Group has publicly documented its progress in putting the policy into operation through the publication of two reports, both of which are available on the company website (*www.musgrave.ie*).

The first report, *Environmental Report 2001 – Managing Our Environment*, was published in late 2001. It was the inaugural winner of the ACCA Irish Environmental Reporting Award.

The company decided to augment its reporting performance for the following report, which was prepared in line with the Global Reporting Initiative's 2002 Guidelines – the acknowledged worldwide "best practice" for corporate social responsibility reporting. Published in September 2002, *Environmental and Social Accountability Report 2002 – People, Places, Products* has been acknowledged as the world's first report to be "in accordance with" the GRI 2002 Guidelines. The report was the winner, once again, of the ACCA Irish Environmental Reporting Award in 2002.

Musgrave Group, which published the world's first sustainability report "in accordance" with the Global Reporting Initiative Guidelines, has since been joined by four other companies. Being in accordance means the report includes the following elements in the format prescribed by the guidelines (see *www.globalreporting.org*):

- sections on vision and strategy, company profile, and the governance structure and management systems;
- a GRI Content Index;
- responses on all GRI core indicators (or an explanation of why an indicator was omitted);
- a statement of compliance with the Guidelines.

In addition, the company or organization must ensure that the report is consistent with the GRI reporting principles: transparency, inclusiveness, auditability, completeness, relevance, sustainability context, accuracy, neutrality, comparability, clarity and timeliness.

Performance Indicators in the GRI Content Index

Economic	Social		Environmental
Customers	Employment and Decent Work	Disciplinary Practices	Materials
Suppliers	Industrial Relations	Security Practices	Energy
Employees	Health and Safety	Indigenous Rights	Water
Funders	Training and Education	Community	Biodiversity
Public Sector	Diversity and Opportunity	Bribery and Corruption	Emissions, Effluents and Waste
Indirect Economic Impacts	Strategy and Management	Political Contributions	Suppliers
	Non-discrimination	Competition and Pricing	Products and Services
	Freedom of Associative and Collective Bargaining	Consumer Health and Safety	Compliance
	Child Labour	Product and Services Declaration	Transport
	Forced and Compulsory Labour	Advertising	Other Expenditures
		Respect for Privacy	

The Group's Managing Director, Seamus Scally, states in that report: "At last, we can see the fruits coming through into our day-to-day business and operational functions, particularly in identifying the true benefits of proper environmental management across the board. Although this process has not been as rapid as I first imagined, substantial progress has been made."

In both 2001 and 2002, Musgrave Group represented Ireland in the European Environmental Reporting Awards. Musgrave Group have since been appointed to and are participating in the GRI Assurance Working Group, based in Amsterdam.

Projects

As mentioned above, the corporate environmental charter was divided into six key policy areas for the business. The implementation programme was focused around delivering key achievements in each of these areas.

Waste management

The policy committed the company to rationalizing its approach to this function, and to generating an economies-of-scale approach with potential benefits in terms of cost, waste minimization and recycling. Their initial waste characterization across all the businesses revealed that over 75% of the waste streams generated were potentially reusable or recyclable. In late 2001 Musgrave signed Ireland's first "one-stop-shop" waste management contract, in which one contractor supplies all waste management services including provision of infrastructure, collection services, disposal services, recycling services, data collection, and reporting and maintenance services. This initial contract, for the southern part of Ireland, covers 225 premises. The contract has been very successful to date from two perspectives. a recycling rate of on average 54% (by weight) has been achieved, and participating retailers have seen cost reductions for the service of 40-60% on average. A further contract, for the midlands area of Ireland, has been agreed recently and a number of others are in preparation.

Environmental training

The company identified training of management in environmental management as a key to achieving improved performance across the business in the medium-long term. An Environmental Management Training Programme was prepared, tailored to Musgrave's needs by a combination of in-house experts and outside consultants. It is dedicated to promoting and achieving better environmental practice in both wholesale and retail businesses. This training programme was launched in 2002; over 30 participants have completed the course to date. A further roll-out of this programme will be made to greater numbers of participants in 2003-05.

Supplies and products

Musgrave Group acknowledged that they held some indirect responsibility for the environmental and social impacts of the produce and products in which they trade. For this reason they initiated a Supply Chain Management initiative, which resulted in Ireland's first "Greening the Supply Chain" conference in Cork in May 2002. This conference, organized by Musgrave Group, programmed ten speakers from industry, legal practice, consultancy and international government agencies. There were over 100 attendees from Musgrave Group's supply chain. Musgrave Group have recently also been awarded an Irish Environmental Protection Agency funding award to examine the feasibility of achieving EU Eco-label certification for one of their own-brand commercial products.

Communications

The company has always recognized that communicating its objectives and practices in regard to environment and social responsibility to both shareholders and stakeholders would be key to the success of any programme implementation. As a company with access to a large share of the Irish retail grocery market, the company committed in their environmental charter to providing consumers with information about products to allow them to make informed choices. In 2002 the company commissioned a research programme to examine Irish consumers' attitudes to the environment and shopping. Further communication projects will be framed around the results of this project. In 2003 Musgrave Group will prepare and launch an ethical trading charter to augment their environmental charter in terms of company policy and strategy.

Buildings

Musgrave Group and their retail partners own – and operate from – large numbers of buildings. The energy, resource and environmental costs of running such large numbers of businesses is quite significant, and plans are in place to reduce the energy and resource use in facilities from a design perspective during development, refurbishing and retrofitting activities. For example, application of new lighting technologies in the development of a store in Cork has resulted in a 70% reduction in electricity use for lighting compared with what the old standard lighting system used, with a short pay-back period for the investment.

Transport

The company's distribution fleet, the largest in Ireland, is also quite significant in size in Northern Ireland, the UK and Spain. The company has acknowledged that this part of the business is one of those with the greatest environmental impacts. Musgrave Group has undertaken a number of projects to reduce these impacts over the past few years, such as "back-hauling" (referring to reducing truck numbers on roads by maximizing the fill rate of trucks at all times while on the road). For example, in 2000 over 5 million kilometres of truck travel were avoided (based on previous practice) through implementation of these projects. The company is currently investigating reducing employee car travel to and from work through the promotion of a number of vehicular emission reduction initiatives.

Moving forward

Musgrave Group will continue to implement environmental and social programmes in the years ahead, concentrating in the immediate future on expanding already successful initiatives across

areas of their business where progress to date has been slower.

Company benefits

As a company, Musgrave Group has benefited significantly from this corporate initiative in terms of economics and costs, social recognition and environmental performance. The company has also carefully positioned itself as one of Ireland's most sustainable businesses for the future.

Economic benefits have been seen largely in terms of the significant savings produced by implementing its waste initiatives, though the company expects to make further savings in regard to energy and resource conservation measures in its buildings programme in the future.

Social benefits from the company have arisen through its expanded sponsorship programme and its participation in schemes based in education, business and the community. The main benefit of these activities for the company is brand differentiation, especially in rural and suburban communities.

The environmental benefits for the company have already been described, but can be summarized in the Musgrave Group's key environmental indicators, which are kilograms of CO_2 emitted in the delivery of each case of products through sales and distribution transport, and operation of their warehouses and office buildings. In 2001 the company saw a reduction, compared to 2000, of just over 10% for both indicators.

The key driver for Musgrave Group's environmental progress is probably best defined through one of the three parts of its mission statement: "creating and sharing exceptional added value through .. businesses which are different and better". The environmental and social performance improvement programme is designed to differentiate the Musgrave Brand, as well as those of its retail franchises SuperValu and Centra, from its main competitors. It is expected that successful brand differentiation will lead to increased sales though community support of local initiatives, increased staff retention through generating staff satisfaction in the company's values, and increased profits through sustainable business.

Over the past three years Musgrave Group has established itself though concrete achievements as the leading corporation in Ireland for Corporate Social Engagement and Responsibility. It has become a world leader through its publication of the first GRI Guideline-compliant report. It will be interesting to judge over the coming years whether the company can continue to successfully generate the results that its brand differentiation programme so clearly deserves. ◆

Monoprix et le développement durable, agissons pour demain, chaque jour

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Summary
Since 2000 Monoprix has been committed to work towards sustainable development, which is now one of the main goals of the company's strategy. Since the sustainable development concept is still unclear to many people, Monoprix (at the interface between consumers and manufacturers) is finding ways, along with its customers, to make its actions more responsible. The aim of the company's "Citymarché ideal" initiative is for stores eventually to exemplify sustainable development values, so that Monoprix will become the symbol of sustainable commerce in city centres.

Résumé
Monoprix s'engage, dès 2000, dans une démarche de développement durable et inscrit ce dernier comme un des axes stratégiques du Groupe. Parce que le développement durable ne se décrète pas, Monoprix, en tant qu'interface entre le consommateur et le producteur, accompagne ses clients vers un comportement plus responsable. La réalisation du cahier des charges du Citymarché idéal a pour ambition que les magasins incarnent à terme les valeurs du développement durable et ainsi que Monoprix devienne le symbole du commerce durable en centre-ville.

Resumen
Monoprix se lanzó a partir del año 2000, en una iniciativa de desarrollo sostenible que es en la actualidad uno de los principales ejes estratégicos del Grupo. Como el desarrollo durable es un concepto que sigue siendo confuso para mucha gente, Monoprix, en su calidad de interfaz entre el consumidor y el productor, y en un diálogo sus clientes, intenta encontrar métodos que le permitan adquirir un comportamiento más responsable. El objetivo de la campaña plasmado en su iniciativa "Citymarché ideal", tiene como ambición que las tiendas encarnen a término los valores del desarrollo sostenible, y que, de esta manera Monoprix se convierta en el símbolo del comercio sostenible en el centro de las ciudades.

D'un concept originel essentiellement politique et global, la notion de développement durable s'est progressivement déclinée de façon tangible dans les actions menées par certaines entreprises. Ainsi pour Monoprix, s'investir en 2000 dans une démarche de développement durable fut l'occasion de renforcer sa mission historique : accompagner la vitalité économique du centre-ville par le commerce, en prenant en compte le contexte social et environnemental de chaque cité.

Dans les années 80, face à l'émergence de la concurrence des magasins de périphérie, Monoprix renforce son action en faveur de la revitalisation des centres-villes. L'enseigne s'attache alors à recentrer son offre de produits et de services pour répondre aux attentes de clients spécifiques : urbains, bien informés, qui ont commencé les premiers à exprimer la volonté de connaître la traçabilité environnementale mais aussi sociale des produits qu'ils achètent.

En 2000, pour structurer la démarche de responsabilité sociale et environnementale de l'enseigne, Monoprix inscrit ses actions dans une démarche de développement durable et formalise son engagement dans une Charte (voir encadré).

En 2001, Monoprix publie son premier *Rapport d'activités pour un développement durable* et inscrit le développement durable comme l'un des axes stratégiques du Groupe.

Cette décision se traduit notamment en 2002 par l'intensification du déploiement de la démarche de développement durable, la mise en place d'un système de gestion adapté à la démarche et la définition d'une stratégie recentrée, dont l'ambition est à moyen terme que l'engagement du Groupe s'incarne dans ses magasins. 2002 est ainsi l'année de la mise en oeuvre d'un grand projet d'entreprise, la création du cahier des charges du « Citymarché idéal », un magasin de centre-ville dans lequel s'expriment les valeurs de développement durable, tant sur le plan de la structure et de l'organisation que sur le plan de l'offre ou encore de la capacité des collaborateurs à devenir les relais d'un comportement plus responsable au quotidien.

Interface entre consommateur et producteur, Monoprix, au titre de commerçant, a un rôle essentiel à jouer

Selon une étude réalisée par Pricewaterhouse-Coopers en mars 2000, 64 % des consommateurs souhaitent connaître les conditions de fabrication des produits qu'ils achètent et 73 % seraient influencés dans leurs achats par l'existence d'un label social.

Pourtant, dans les faits, on ne peut encore parler d'une réelle pression de la société civile en faveur de produits plus respectueux de l'environnement ou même d'équité sociale. Aujourd'hui, les choix de consommation du public ne sont pas guidés par ce type de critères. La demande demeure latente. Bien que réelle, elle ne s'exprime pas encore de façon consciente et positive.

Notre ambition est de participer à la prise de conscience sociétale qui permettrait d'accompagner les consommateurs à devenir des « consommacteurs ». Cela nécessite un long travail pédagogique, notamment en jouant un rôle de prescripteur auprès de nos partenaires et de nos clients pour les guider vers des pratiques plus respectueuses de l'environnement et vers un commerce plus équitable. Pour ce faire, Monoprix a par exemple développé des partenariats agricoles pour s'assurer de modes de production et d'élevage respectueux des principes de l'agriculture raisonnée. Ces initiatives se traduisent par des cahiers des charges dont un exemple est fourni en encadré, qui considèrent notamment le respect de l'environnement, la traçabilité des produits et des pratiques, l'alimentation et le bien-être des animaux, la gestion des sols et des déchets de l'exploitation.

Cela passe également par le rôle fondamental d'information et de promotion du développement durable que peut jouer un commerçant tel que Monoprix auprès de ses clients. A ce titre, l'offre de produits pour la qualité de vie (voir encadré) constitue la partie la plus tangible de notre engagement en faveur du développement durable. Aujourd'hui encore, dans les faits, les clients ne franchissent pas principalement le seuil d'un magasin pour être informés sur des problématiques de société. L'enjeu est donc de parvenir à développer la demande au travers de la satisfaction de réflexes plaisir. Il s'agit également de multiplier et de diversifier l'offre, tout en aidant les consommateurs à se repérer, à différencier les produits.

Agir sur l'offre afin de stimuler la demande

Monoprix entend ainsi jouer un rôle actif de promotion des produits porteurs des valeurs du développement durable et faire en sorte qu'ils rencontrent l'intérêt des consommateurs. Aujourd'hui, notre offre compte plusieurs dizaines de produits pour la qualité de vie, permettant au plus grand

Historique des produits pour la qualité de vie

Monoprix Bio :

1990 Première enseigne à proposer des fruits et légumes biologiques.
1994 Lancement de la gamme Monoprix Bio (épicerie et produits frais).
2000 110 produits composent la gamme Monoprix Bio.
2001 146 produits, 9% des ventes chez Monoprix.

Monoprix Vert :

1990 Première enseigne à proposer une gamme distributeur de produits de qualité environnementale, Monoprix Vert.
1995 Evolution des procédés de fabrication. Monoprix fait évoluer sa gamme pour ne retenir que les produits les plus performants.
1997 Création de pictogrammes d'information sur la qualité environnementale des produits en cycle de vie.
2000 32 produits dans la gamme Monoprix Vert. La gamme reçoit le prix Eco-produit 1999-2000 décerné par le Ministère de l'Aménagement du Territoire et de l'Environnement et l'ACFCI.
2001 La gamme Monoprix Vert compte 41 produits, dont 10 produits écolabellisées NF Environnement et Eco Label Européen.
Pemière enseigne à distribuer Héliote, un économiseur d'eau titulaire du prix Eco-produit 2001-2002.

Monoprix Bien Vivre :

Début 2001 Lancement de la gamme Monoprix Bien Vivre (33 produits).
Fin 2001 La gamme comporte 68 produits.

Produits issus du commerce équitable :

1998 Première enseigne à proposer du café Max Havelaar (Malongo).
1999 Monoprix est le premier distributeur à créer un café biologique Max Havelaar à marque propre (Monoprix Bio).
2001 Lancement d'un thé Monoprix Bio, labellisé Max Havelaar.
2002 Monoprix est le premier distributeur à proposer un produit frais, la banane labellisée Max Havelaar.
Lancement de la gamme Alter Eco composée de 13 produits issus du commerce équitable et labellisés Max Havelaar.

Produits issus des partenariats agricoles Monoprix :

1998 Développement d'un cahier des charges et d'un suivi qualité avec les producteurs de fruits et légumes.
1999 Commercialisation de pêches, nectarines, pommes et poires respectant les principes de l'agriculture raisonnée sous la marque Monoprix Gourmet.
2000 Signature d'un partenariat avec Bleu-Blanc-Cœur, association qui promeut l'utilisation de la graine de lin naturellement riche en Oméga 3 (acides gras essentiels) dans l'alimentation des animaux d'élevage.
Signature de partenariats avec les éleveurs de races bovines Aubrac et Salers.
2001 Signature d'un partenariat avec les éleveurs de vaches Limousines.
Lancement des produits issus de la filière Bleu-Blanc-Cœur (beurre, œufs, volailles, viande de porc et charcuterie) sous la marque Monoprix Bien Vivre.

nombre de consommer des produits porteurs de valeurs conformes aux exigences du développement durable. Notre démarche concerne à la fois les modes de production, le contenant et le produit. Elle s'inscrit dans le développement de marques propres, de partenariats agricoles et de produits issus du commerce équitable. En marques propres, ont ainsi été développées dès les années 90 une gamme de produits biologiques (Monoprix Bio) et une gamme de produits de qualité environnementale (Monoprix Vert) qui a reçu le prix Eco-produit 1999-2000 décerné par le Ministère de l'Aménagement du Territoire et de l'Environnement et l'Assemblée des Chambres françaises de commerce et d'industrie (ACFCI).

Une autre illustration significative réside dans l'introduction de produits issus du commerce équitable. Pour Monoprix, le commerce équitable constitue une forme moderne de solidarité : la rémunération du travail à sa juste valeur, qui seule peut permettre aux pays en développement de s'orienter vers un développement durable. Ainsi, dès 1998, Monoprix est le premier distributeur non spécialisé à proposer un café à la marque Malongo, garanti Max Havelaar. En 1999, Monoprix prend également l'initiative de créer un café à sa marque Monoprix Bio afin d'offrir une plus grande visibilité au produit tout en lui apportant la caution de l'enseigne. Aujourd'hui, ce sont près de 15 produits proposés dans les rayons dont un produit frais, la banane.

La gamme Monoprix Bien Vivre, créée en 2001 avec des nutritionnistes, permet de proposer chaque jour aux clients de Monoprix des produits répondant à une triple préoccupation : le plaisir des saveurs, la richesse en nutriments essentiels et le respect des règles nutritionnelles. En 2002, 85 produits composent la gamme et Monoprix reçoit le « Trophée de la qualité » décerné par Cuisines et Vins de France, sous le haut patronage du Ministère de l'Agriculture et de la Pêche, pour les produits de la gamme issus du partenariat avec Bleu-Blanc-Coeur.

Parallèlement à l'offre de produits, notre action vise également à sensibiliser nos clients à un comportement plus respectueux de l'environnement au quotidien. A titre d'exemple, en 2000 la distribution d'environ 260 millions de sacs de caisse transparents (norme AFNOR) a permis de réduire de 65 tonnes l'utilisation d'oxyde de titane par rapport à l'usage de sacs blancs, ou encore le choix

Charte de développement durable du Groupe Monoprix

Etre leader dans l'offre de produits pour la qualité de vie
- Développer l'offre de produits issus de l'agriculture biologique
- Innover et proposer des produits de qualité environnementale
- Obtenir une meilleure visibilité amont et aval des produits
- Promouvoir les produits issus d'une démarche éthique et sociale contrôlable

Renforcer et accroître la qualité de vie dans nos magasins
- Développer l'accès à des services de proximité pour nos clients
- Favoriser toutes les initiatives destinées à renforcer l'accueil et la convivialité
- Devenir un relais d'informations de la vie en ville
- Sensibiliser et former le personnel à la démarche du Groupe

Maîtriser les impacts sur l'environnement de l'activité du Groupe Monoprix
- Optimiser les consommations d'eau et d'énergie
- Mettre en place une gestion durable des déchets
- Limiter les impacts liés à l'activité de transport

Initier des actions locales s'inscrivant dans une démarche de développement durable
- Tisser des liens sociaux et participer au développement local
- Développer des partenariats auprès des fournisseurs et les accompagner dans leur démarche
- Favoriser et participer à des travaux ou réflexions sur les grands enjeux du développement durable
- Promouvoir auprès de nos clients les bonnes pratiques de développement durable

Informer et rendre compte des actions de développement durable de Monoprix

d'encres à l'eau a entraîné une diminution de l'emploi de solvants de 60 tonnes. Nos magasins mettent également à la disposition de leurs clients des récupérateurs de piles.

Cependant, proposer des produits porteurs des valeurs du développement durable, s'engager à les maintenir en rayon quel que soit leur succès commercial, prendre sur soi de créer la demande par une démarche active d'information et de promotion constitue un risque pour les distributeurs. Un risque réel à court terme mais mesuré sur le long terme. En effet, comme ce fut le cas il y a dix ans lors de l'introduction du « Bio » dans les rayons, le développement de produits porteurs des valeurs du développement durable recoupe une tendance de fond de la société civile et il appartient aux commerçants d'en favoriser l'expression.

Nous sommes convaincus que le marketing constitue un formidable outil pour atteindre cet objectif. En effet, le marketing a un rôle essentiel à jouer pour promouvoir, non seulement l'engagement du Groupe en faveur d'un commerce plus équitable et respectueux de l'environnement – campagne d'image, promotion des produits – mais surtout le développement durable lui-même.

Incarner les valeurs du développement durable dans les magasins

L'inscription du développement durable comme axe stratégique du Groupe s'est en particulier traduit par la définition d'une stratégie recentrée, dont l'ambition est à moyen terme la mise en application du cahier des charges du Citymarché idéal.

La réalisation de cet objectif implique pour l'enseigne d'optimiser l'intégration de ses magasins dans leur environnement – ville et quartiers – aux plans économique, social et environnemental, d'augmenter le confort et la qualité d'accueil des clients en magasin en leur offrant de nouveaux espaces de vente et de services, d'amener chacun de ses collaborateurs à devenir les faire-valoir d'un comportement plus responsable au quotidien ou encore d'engager des rénovations de magasins fidèles à des critères d'intégration paysagère, dans

The social dimension of sustainable development and the retail sector

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The World Summit on Sustainable Development (WSSD) last fall called for full recognition of the social pillar of sustainable development, including poverty, access and equality, and income-generating employment issues. Since the 1992 Earth Summit, these have been priorities for the International Confederation of Free Trade Unions (ICFTU), the Trade Union Advisory Committee to the OECD (TUAC) and the Global Union Federations (GUF).

Trade unions are now exploring ways to integrate these priorities with changes to production and consumption patterns, environmental protection, and water, energy, health, agriculture and biodiversity (WEHAB) areas on a sector-by-sector basis. After providing a perspective on the social dimension, this article will outline some of the ways trade unions believe it can be implemented in the retail sector.

Significance of the social dimension

The trade union movement's concern for the social dimension of sustainable development goes back to its birth, when it first challenged unsustainable forms of development that brought ill health and death, environmental degradation, job dislocation and insecurity to workers and their communities. Early efforts in the area of occupational health and safety have developed into recognized models for joint action among trade unions, employers and governments (including in the retail sector).

Universal acceptance of such models is reflected in WSSD, which calls for the ILO and WHO to integrate occupational with public health programmes. Governments are called on to support workplace-based partnerships that include cooperation between enterprises and communities. In addition, international agencies and stakeholders in the retail sector are encouraged to make the workplace a focus for action in areas within their mandate and capacity.[1]

Potential for change in the retail workplace

The WSSD set the stage for implementation measures that target the workplace as the hub of unsustainable patterns of production and consumption, and that call for the engagement of both workers and employers as the key to positive results in the long term. At the WSSD, the Global Unions joined UNEP and ILO to host a workshop on workplace tools directed at environmental and social targets. These included strategies for joint union/ employer "workplace assessments"[2] to address specific environmental, socio-economic security and occupational health and safety issues, with specific attention to WEHAB priorities. Both WSSD outcomes and Agenda 21 refer to a broad range of workplace tools that could be included in any implementation strategies.

How can such tools be developed, improved and applied in the retail sector? First, by improving the activities of workplaces themselves and, secondly, by developing a learning process for workers that can have some bearing on information transmitted to consumers. For example:

- *Union-employer committees* and processes based on occupational health and safety templates currently exist in the retail sector. Together with education, research and information-sharing, they can be adapted to broader sustainable development issues and to engagement in joint "workplace assessment" processes.
- Some 2.2 million *collective agreements* (CA's) exist today at the plant level. Many of these legal contracts contain "green" or "sustainability" clauses, while company-wide and sectoral agreements call for joint health, safety and environment committees, work councils, safety and environment representatives, education and information-exchange. Many of them already exist within the retail sector. Moreover, "framework agreements" negotiated by Global Union Federations (e.g. the International Union of Foodworkers) commit multinational corporations to sustainable development goals wherever they do business.
- *Voluntary agreements* (including CA's), which complement regulation at the national level as well as such international instruments for corporate social responsibility as the OECD *Guidelines for Multinational Enterprises*, have promoted workplace conservation and efficiency measures in such key areas as energy, climate change, water use and waste reduction.

Each of these examples assumes a strong role for government in joint monitoring, verification and reporting backed by an effective state and public sector (particularly in regulating the workplace) to remove labour and vital social services from the realm of competition. However, the development of workplace-based partnerships and joint engagement of actors in common initiatives are also assumed, including in the retail sector.

Linkages and "spill-over" effects: the retail workplace

Globalization and the "new economy" bring urgency to calls by the WSSD to eradicate poverty and social exclusion through employment-related measures. For activities within the retail sector stakeholders must now ask: *What will be their impacts on employment and on people's access to basic commodities, as well as on the environment, resources or services?* Or, conversely: *How can our efforts to end child labour and exploitation of vulnerable groups also contribute to environmental protection?*

In summary, actors in the retail sector must consider how worker security through social and employment transition planning, freedom of asso-

le respect de l'environnement et de l'architecture locale. Concrètement, de nombreuses actions ont été engagées dans ce sens, parmi lesquelles :

- un programme de rénovation et de création de magasins : ainsi, en 2001, 4 magasins ont été créés et 30 ont bénéficié d'une rénovation totale ou partielle ;
- l'établissement d'un cahier des charges dans le respect de la certification HQE (Haute Qualité Environnementale) qui sera appliqué lors des rénovations et constructions de magasins. Un bâtiment HQE est un bâtiment qui, tout au long de son cycle de vie, satisfait à la préservation des ressources naturelles, aux exigences de confort, de qualité de vie et de santé de ses occupants ;
- l'intégration paysagère des magasins. Depuis 1960, Monoprix a en effet engagé un programme de rénovation des façades ayant pour objectif d'intégrer les magasins dans le paysage local, tout en mettant en valeur le patrimoine de chaque cité. Aujourd'hui, à titre d'exemple, les façades de nos magasins reflètent la diversité et la richesse de notre patrimoine : colombages du XVI[e] siècle à Troyes, style contemporain au Havre, architecture de type haussmannien à Paris ou bien esprit méditerranéen à Cannes ;
- la mise en place dans les magasins d'une gestion optimisée des déchets. En 1996, Monprix récupère les piles boutons en mettant des petits containers à disposition de ses clients. En 1999, des audits déchets sont réalisés dans 15 magasins pilotes afin d'évaluer la nature et la quantité des déchets produits. En 2000, de nouveaux audits déchets sont réalisés dans 5 magazins pilotes, permettant la définition d'indicateurs et de recommandations de gestion globale commune aux différents en magasins. Cette même année, Monoprix met en place des containers pour récupérer les piles bâtons dans des magasins pilotes, devançant ainsi un décret sur la collecte des piles et accumulateurs usagés. En 2001, la collecte des piles est généralisée à l'ensemble des magasins.

Mais les performances économiques de l'entreprise peuvent s'opposer aux performances environnementales à atteindre, souvent en contradic-

cistion and core labour standards can be made to contribute to their overall responsibilities for environmental protection. The WSSD challenge to link *public health and workplace health and safety* through partnerships among public health authorities, union representatives and health professionals to combat health problems such as HIV/AIDS at workplaces and in communities is a prime example that can also be linked to the equally important call for using environmental impact assessments to address WEHAB issues. The potential for change can be readily seen in the retail sector.

Among workers

Such linkages are important because quantum leaps in worker support for environmental protection can only take place when their livelihood and basic security concerns are addressed. The potential for this support to *spill over into personal consumption patterns* can be clearly seen in the retail sector, where programmes involving consumer, trade union and other groups can be readily implemented to encourage more responsible producers and consumers.

Education for sustainable development

Retail outlets can be transformed into *learning organizations*, with retail workers promoting awareness through strategies that link worker training with awareness-raising for customers in conjunction with public media, formal education and the arts. *Consumer labels* that signify responsible management systems can be used to influence purchasing patterns, for example to draw attention to the implications of new products and technologies including biotechnology, for public and occupational health.

Planning for sustainable transportation

Joint planning in the retail sector can also address unsustainable *urban transportation patterns*. Trade unions, employers and community partners have collaborated in numerous initiatives to limit private car use (especially for commuting to and from work) and to promote efficient, affordable public transport.[3] They have also promoted sustainable alternatives to current patterns of goods transport that seek efficiencies at the expense of worker and community well-being. However, changes to deeply ingrained practices require widespread "buy-in" and need to be backed by public regulation and planning, as well as by changes to fiscal policy and assurances of a just transition to sustainable development.

Promoting life-cycle principles

Joint planning can promote *a "life-cycle" view* of consumer products among workers, customers, suppliers and distributors within the retail sector. A "plough-to-plate"[4] approach to public health and nutrition, and regional and national food self-sufficiency among food retailers can link individual health and well-being to working conditions faced by waged agricultural workers, *women and youth* in low-paid, insecure jobs (e.g. those involving handling of chemicals, dangerous working conditions and violence). *An end to child labour* can be promoted through community and educational programmes that address causes and solutions.

Building public consensus

As consumption of retail goods is directly related to disposable income, retailers can draw attention to the way benefits are shared with host communities, especially by target groups such as indigenous people and youth. *Local authorities* are well situated to make the connection between local communities and international marketing and supply. Workplace assessments can be integrated into local authority targets, reporting systems and activities to become the basis for action.

A crucial challenge in the upcoming years will be to build *broad-based consensus* for the policy decisions and massive public expenditures that will be required to implement WSSD outcomes. Consensus on climate change is a prime example; despite growing awareness, worker support still cannot be taken for granted. It will require, *inter alia*, "just transition" measures to accommodate social and employment impacts that assure workers they will not have to bear a disproportionate burden of the cost – as they have done in the past.[5] Attention can be given to such employment and social implications using the retail outlet as a prime point of contact with the public.

Notes

1. Trade union views concerning the potential for UNEP, ILO, WHO and stakeholder partnerships to fully integrate the thee pillars of sustainable development are contained in a critical review tabled at last November's meeting of the OECD Environment Policy Committee (EPOC). See *www.tuac.org/Embargued/OHSE/08%20OHSE%20E%2002NovTUstatment.pdf.*
2. "Workplace assessment" describes a process whereby trade unions and employers at one or several work sites, or in a sector or region, agree to joint assessments of workplace performance according to agreed checklists related to environmental, occupational and social criteria. Such an assessment should lead to joint programmes of change to identify and fix problems ranging from the simple (e.g. workplace water leaks, wastes or losses) to the complex (e.g. improving workplace conditions related to employment, social security, technology and other issues) and be of short duration or stretch over several years to fulfil complex objectives.
3. See *Sustainable Energy and Transportation – The Role of Workers and Trade Unions*, TUAC, ICFTU, ICEM, IMF, ITF and PSI, CSD, 2001
4. See "*Plough to Plate" Approaches to Food and Agriculture*, TUAC, ICFTU and IUF, CSD, 2000.
5. See *Responding to WSSD About Social and Employment Transition for Climate Change. Trade Union Statement to COP8*. New Delhi, India, October 2002.

tion avec les attentes des clients désireux d'une qualité d'accueil et d'un niveau de service élevés fortement consommateurs d'énergie (éclairages, climatisation, chauffage...). Les contraintes d'espace, d'aménagement et d'ergonomie constituent autant de facteurs aggravant qui ne facilitent pas la mise en œuvre de notre stratégie en matière de développement durable.

Construire le Citymarché idéal implique aussi pour l'enseigne l'adhésion de tous en interne. Notre objectif est ainsi que les 17 665 collaborateurs de l'entreprise portent la démarche. Cela suppose un lourd travail de ressources humaines. Plusieurs étapes sont nécessaires pour susciter une adhésion volontaire de l'ensemble des équipes, tant au siège que dans les magasins. Le développement durable est en effet une politique de petits pas, dont les fruits du travail ne peuvent être récoltés qu'à moyen terme. En ce sens, il s'agit d'une véritable « évolution culturelle ».

Un plan de sensibilisation et de formation a été initié en 2000. La priorité pour 2001 a été de favoriser l'appropriation par tous les niveaux de l'encadrement. Simultanément, l'ensemble des acheteurs de l'enseigne ont suivi une formation au cours de laquelle ils ont été sensibilisés en particulier à l'équité sociale et ont reçu les outils nécessaires à une intégration progressive des critères environnementaux dans le développement de produits. Une campagne de « vulgarisation » à l'attention de tous les collaborateurs a été programmée entre novembre 2001 et avril 2002. Elle s'est clôturée par l'annonce de l'adoption d'un manchot vert par l'enseigne comme symbole de sa démarche de développement durable (voir encadré). De même, les directeurs de magasin ont été formés aux bonnes pratiques de développement durable. Cette formation a été démultipliée auprès de l'ensemble des salariés des magasins, puis de ceux du siège, courant 2002.

Ces quelques exemples, loin d'être exhaustifs, montrent combien permettre l'appropriation d'une démarche par les salariés pour les amener à devenir les acteurs et les prescripteurs du développement durable constitue une démarche de long terme, fortement mobilisatrice de ressources.

Cahier des charges pour la viande de porc frais

Pour obtenir une meilleure visibilité sur les conditions de production et les qualités des produits sélectionnées, Monoprix développe une politique de partenariat avec ses fournisseurs du monde agricole. Pour constituer ces partenariats, Monoprix définit des normes de qualité formalisées dans des cahiers des charges. Ces normes sont adaptées pour chaque cahier des charges en fonction des partenariats développés.

Par exemple, pour la viande porcine, les engagements formalisés par un cahier des charges prennent en compte 7 critères fondamentaux de traçabilité et de qualité clairement identifiés :

1. L'alimentation de l'animal est strictement végétale et les fourrages doivent être produits sur l'exploitation ou fournis par des fabricants référencés.
2. Les partenaires s'engagent à maintenir les structures agricoles existantes et à préserver l'environnement.
3. Les partenaires s'engagent dans des démarches garantissant des conditions de vie meilleures aux animaux (respect des bonnes pratiques agricoles, période de plein air, temps de transport limité afin de limiter le stress de l'animal, etc.).
4. Tout produit doit pouvoir être tracé afin de connaître les conditions d'élevage des animaux entrant dans la filière.
5. Les partenaires sont tous des producteurs français fournissant des animaux nés et élevés en France titulaires du label Viande Porcine Française (VPF).
6. Chacun de acteurs de la filière accepte d'être soumis à des contrôles effectués par un organisme indépendant dont la mission est de vérifier la pérennité de son engagement.
7. Enfin, dans le but de faire évoluer la filière, un plan de progrès permet de dresser un bilan annuel, de faire évoluer le cahier des charges de manière concertée afin d'atteindre des objectifs communs aux partenaires et à Monoprix, qui, dans le cadre de sa démarche de développement durable, combine contraintes réglementaires et environnementales. Le plan de progrès a également pour objectif d'anticiper les attentes des consommateurs.

Informer les clients sur les bonnes pratiques de développement durable

Vert comme l'espoir, DD le manchot est une sculpture à taille réelle de 1m20. Le manchot, par son comportement social fondé sur les valeurs de solidarité et de soutien et par sa vulnérabilité aux atteintes à l'environnement, peut contribuer à rendre plus accessible le concept du développement durable et à sensibiliser le plus grand nombre aux bonnes pratiques de solidarité et de respect de l'environnement.

Conclusion

Le développement durable ne se décrète pas. Il s'agit aujourd'hui d'agir concrètement, au quotidien, avec nos clients et à leurs côtés, avec pour ambition de construire, pas à pas, un commerce durable, c'est-à-dire plus équitable et respectueux de son environnement, aujourd'hui et demain.◆

Promoting sustainable use of natural resources

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Summary

The beverage carton industry is committed to improving its resource use and environmental performance. Specific sectoral priorities have been identified for one or more parts of the industry chain, including: sustainable management of forest resources, biodiversity conservation, reduction of energy use throughout the chain to support CO_2 emission reductions, reduction of air emissions from plant and transport sources, reduction of water use and emissions, reduction of chemicals and hazardous substances, and recovery and recycling of used forest-based resources. The industry takes a life-cycle approach to the management of its activities, from forest to recycling and recovery. The chain's representative association, the Alliance for Beverage Cartons and the Environment, participates in the UNEP Life Cycle Initiative. ACE views this initiative as necessary to the development and dissemination of life-cycle thinking globally.

Résumé

L'industrie des emballages carton pour boissons s'est engagée à diminuer sa consommation de ressources et à améliorer ses performances environnementales. Des priorités spécifiques ont été déterminées pour un ou plusieurs maillons de la chaîne d'approvisionnement du secteur, notamment une gestion durable des ressources forestières, la conservation de la biodiversité, la réduction de la consommation d'énergie dans l'ensemble de la chaîne afin de contribuer à la réduction des émissions de CO_2, la réduction des émissions provenant des usines et des moyens de transport, la réduction de la consommation et des rejets d'eau, la réduction des quantités de produits chimiques et substances dangereuses employés, la récupération et le recyclage des ressources forestières usées. La profession a opté pour une gestion de ses activités basée sur le cycle de vie, de la forêt au recyclage et à la récupération. L'association qui représente la chaîne, l'Alliance for Beverage Cartons and the Environment, participe à l'initiative du PNUE sur le cycle de vie des produits et services. L'ACE estime cette initiative indispensable pour développer et diffuser dans le monde le principe du cycle de vie.

Resumen

La industria de los cartones para el envase de bebidas se ha comprometido a mejorar el uso de los recursos y del rendimiento ambiental. Las prioridades específicas del sector fueron identificadas por uno o varios interlocutores en la cadena industrial, e incluyen: la gestión sostenible de los recursos forestales, conservación de la biodiversidad, reducción del uso de la energía a través de la cadena de apoyo a la reducción de las emisiones de CO_2, reducción de las emisiones de aire provenientes de las plantas y los transportes, reducción del uso de agua y de las emisiones, reducción de las sustancias químicas y peligrosas, y recuperación y reciclaje de los recursos forestales utilizados. La industria ha adoptado un enfoque que se basa en un ciclo de vida el cual guiará la gestión de sus actividades, desde el bosque hasta la recuperación y el reciclaje. La asociación representante de la cadena, la Alliance for Beverage Cartons and the Environment (La Alianza entre los Cartones de Envase de las Bebidas y el Medio Ambiente) participa en la Iniciativa por un Ciclo para la Vida del PNUMA. La Alianza interpreta esta iniciativa como necesaria para el desarrollo y la difusión de un ciclo de vida con proyecciones mundiales.

Since the World Summit on Sustainable Development in Johannesburg, sustainable management of resources has become a key global sustainability objective. Within the EU, this view has already been expressed in the European Council's Sustainable Development Strategy (SDS) and, more specifically, in the Sixth Environmental Action Programme. The 6th EAP[1] identifies the need for responsible management of resources during three phases of the business eco-cycle:

1. management of natural resources;
2. management of their subsequent use in the form of economic products;
3. management of products at the end of their life.

The European Commission is expected to formally initiate a stakeholder debate on sustainable natural resources management when it issues a Green Paper on this topic in 2003. The approach to be adopted is critical. It will require the collective support of all stakeholders interested in effective and efficient use of natural resources.

A number of guiding principles should frame the development of this strategy, particularly the emphasis on a life-cycle approach to assessing resource use and environmental impacts both upstream and downstream within the economy. It would be encouraging to think that social and economic aspects of resource use would also be considered, but that may prove difficult in practice, especially within the EU institutional context. Some issues (e.g. human rights, poverty alleviation, reduction of perverse subsidies) are so complex and interwoven that they cannot easily be addressed within a strategy for resource use. Particularly in light of the Johannesburg commitments, however, this will disappoint many stakeholders.

Developing a strategy for sustainable use of natural resources

In developing a thematic strategy, an effort must be made to ensure consistency with the range of international and EU measures and policies related to achieving sustainable development. For example, proposals regarding Integrated Product policy variously perceive it as a "tool" or a "range of instruments" for improving resources management. Moreover, this strategy should be based on a life-cycle approach to resource use to avoid overemphasizing specific aspects of a resource cycle.

If a thematic resource use strategy is to be effective, other requirements must also be addressed. The relationship to the proposed recycling strategy will also need clarification and coordination, as recycling is in effect "resource recovery" and is now part and parcel of the resource equation.

How well the goals of the strategy have been met must be measurable in some way (i.e. through definition of indicators) if the strategy is to be something more than a programme of good intentions. Methods of measuring resource efficiency and renewability, for example, also become important in this context. However, as highlighted in a recent report on measuring resource efficiency prepared for the UK Department of Environment, Transport and the Regions,[2] measuring resource efficiency in a way that reflects the ultimate goal of sustainable development is complex and all current measures are still imperfect.

Nevertheless, on the basis of 6th Environmental Action Programme (2001-2010), the European Commission has tentatively identified the following objectives for a thematic strategy on sustainable use of natural resources:

- establishment of goals and targets for resource efficiency;
- promotion of extraction and production methods and techniques to encourage eco-efficiency and sustainable use of raw materials, energy, water and other resources.

Summary of major sustainable development commitments in the WSSD action plan

General policy and social commitments

- Reinforced commitment to sustainable development
- Meeting the challenges from globalization and creating wealth for all
- Commitment to economic growth as a key enabler
- Commitment to good government practices
- Increased engagement in economic development and development aid
- Commitment to cultural diversity, human rights and peace
- Commitment to continued joint efforts by developed and developing countries.
- Commitment to renewed efforts
- Commitment to poverty eradication

Environmental aspects

- Commitment to renewable energy
- Commitment to water management programmes and access to clean water
- Commitment to the Kyoto process and further initiatives to protect the global climate
- Commitment to better resource management so as to preserve biodiversity, natural resources, fisheries
- Acknowledgement of voluntary programmes and international performance standards
- Introduction of the precautionary principle for chemicals and chemical substances
- Commitment to life-cycle thinking
- Promotion of environmental education and consumer information, e.g. labelling

Economic aspects

- Reduction of perverse subsidies, particularly in energy and agriculture
- Commitment to economic development, trade and free flow of capital
- Reinforcement of the major role of trade, reduction of trade barriers
- The role of environmental conventions is equally important
- Facilitation of market access, particularly for agricultural products

Source: Taken from K. Saur, *Report from the World Summit on Sustainable Development*, Five Winds International, 2002 (unpublished).

A prerequisite for moving forward on these broad objectives will be an assessment of material/waste flows within the EU (e.g. the Wuppertal Institute's work for the European Environmental Agency on material flows), as well as a review of the efficiency and effectiveness of existing EU policy measures related to resources or resource use.

Identifying priority resource sectors

Identification of priority resources is the first step in the process. The resource sectors chosen will clearly be those whose use by industry is significant. Some indications of likely resource priorities are already well known and documented. Criteria for selecting priority resources may need to be clarified. However, in the following resource sectors economic use is a critical factor:

- minerals (including aggregates);
- fossil fuels;
- soil;
- forests;
- marine (fisheries);
- freshwater (including surface and groundwater)

A further distinction between renewable and non-renewable resources will also need to be made, particularly if there is an intention to manage or shift demand between different resources.

A materials sector approach

A materials sector approach to managing these resources may well become the basis for practical measures to improve the sustainability of resource use. This approach assigns responsibility for meeting sustainability targets, for and between different stakeholders, in an interconnected value chain. More explicitly, a materials sector approach will:

- encourage an integrated approach to environmental impact reduction throughout the entire life-cycle chain of a resource sector;
- provide for effective implementation and monitoring;
- increase the level of transparency with respect to industry resource management initiatives and achievements;
- mobilize industry value chains themselves to set targets for resource use and management.

A materials sector approach is also important when one comes to focus on how macro-level objectives and targets for resource use at EU level will actually be achieved within the economy.

The beverage carton in the forest resource eco-cycle

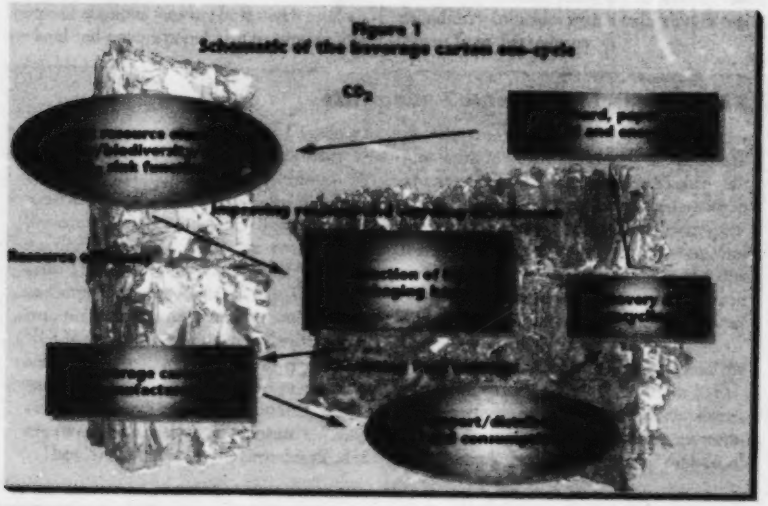
The beverage carton industry chain (as part of the forest-based materials sector) is fully committed to improving its resource use and environmental performance. This can clearly be demonstrated over the complete life cycle of the beverage carton. In addition, the carton's function – protecting food products and preventing food waste – highlights the role of packaging in the sustainable management of resources, i.e. ensuring that expensively (economically and environmentally) produced food is not wasted during distribution to the consumer.

The production, use and recovery of beverage cartons, like that of other paper-based products, closely resembles an "industrial ecosystem" (Figure 1). The principal elements include:

- harvesting of wood from sustainably managed forests;
- production of paperboard;
- conversion of paperboard to beverage cartons;
- use of cartons in the food industry;
- recovery of cartons from the household waste stream.

Based on the cycle and principle elements described above, the beverage carton industry is already meeting or striving to meet the objectives of sustainable use of natural resources and to maintain a positive balance (the industry is effectively a CO_2 emissions "sink"). This is accomplished through, for example, sustainable use of forests (including protection and enhancement of biodiversity), enhanced efficiency in terms of material use in board production and conversion, effective utilization of bio-energy and renewable energy in board production, efficient transport systems, prevention of food wastage, and improved recycling and recovery of post-con-

Figure 1
Schematic of the beverage carton eco-cycle



sumer materials. All these aspects are part of the beverage carton eco-cycle.

With respect to the primary resource, the forest, all beverage cartons are derived from forests that are well managed and no tropical rain forests are used. Standing volumes in the managed forests used are constantly increasing, and growth exceeds the felling. Furthermore, technology is now available to produce about 50% more cartons from the same amount of wood than was possible in 1980.

An OECD report recently confirmed the above trend for forest resources in its member countries. According to this report, "it is unlikely that wood will be in scarce supply in the coming decades as only 55-60% of annual forest growth in OECD regions is currently harvested". This reinforces the essential renewable nature of well-managed forest resources.

Reinforcing responsibility in the industry chain

On the basis of its existing track record, the beverage carton industry chain is exploring how it can further enhance its approach to sustainable use of natural resources in the future. As a starting point, the existing policy, regulatory and management context for the chain has been mapped against the overall framework of the EU priority areas (climate change, transport, public health, natural resources) decided at the European summit in Gothenburg in 2001 and laid down in the 6th Environmental Action Programme.

Building on these policy goals, specific sectoral priorities have been identified for one or more parts of the chain, including:

- sustainable management of forest resources;
- protection of biodiversity;
- reduction of energy use throughout the chain to support CO_2 emission reductions;
- reduction of air emissions from plant and transport sources;
- reduction of water use and water emissions;
- reduction of chemicals and hazardous substances;
- recovery and recycling of used forest-based resources.

The beverage carton industry is now examining these sectoral priorities, with a view to reinforcing existing measures and targets and making them more transparent. This evaluation will be assisted by the fact that the industry takes a life-cycle approach to the management of its activities, from forest to recycling and recovery. The chain's representative association, the Alliance for Beverage Cartons and the Environment (ACE),[3] participates in the UNEP Life Cycle Initiative launched in 2002 at Prague.[4] ACE views this initiative as being important and necessary for the development and dissemination of life-cycle thinking globally. It is also a prerequisite for sustainable use of natural resources.

In conclusion, sustainable natural resources use is a common aspiration of all stakeholders: policy makers, NGOs (environmental, developmental and social) and industry. Guiding principles and approaches have already been established. The challenge will be to rise above narrow prescriptive and sectoral perspectives and to bring forward strategies and measures that significantly contribute to sustainable use of natural resources.

Notes

1. See *http://europa.eu.int/comm/environment/newprg.*
2. I. Moffat, N. Hanley, S. Allen and M. Fundingsland, *Sustainable Prosperity: Measuring Resource Efficiency. A Report to the Sustainable Development Unit of the Department of Environment, Transport and the Regions,* 2001.
3. See *www.ace-inter.net/home.html.*
4. See *www.uneptie.org/media/review/ie_home.htm.* The Seventh International High-level Seminar on Cleaner Production (CP7) in Prague is the theme of the July-September 2002 special issue of *Industry and Environment* (Vol. 25, No. 3-4). For the launching of the UNEP/SETAC Life Cycle Initiative, see pp. 38-40 of that issue.

The views expressed in this article are those of the author. They do not necessarily represent the views of the Alliance for Beverage Cartons and the Environment or its members.

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Outconsuming the Earth's "biological capacity"

The Earth's "biological capacity" is being outconsumed by 20%, says a report from Redefining Progress, an environmental NGO in the United States. The latest update to *Ecological Footprint of Nations* looks at the capacity of each of 146 countries to support its own resource consumption.

The NGO's researchers report a number of improvements in "ecological footprint" accounting methods. They say world consumption is 2.3 "global hectares" per person, while the Earth's capacity is 1.9 global hectares. Their accounting method defines a global hectare as a hectare of biologically productive space with world average productivity. As the report puts it, this method "tells us how much nature there is per global citizen". Redefining Progress has determined how much of the Earth's surface area is what it defines as biologically productive, then divided that by the world population (using 1999 figures, the latest available, in the new update) to arrive at 1.9 global hectares.

Brazil has a biocapacity of 6.0 global hectares while its consumption (or ecological footprint) is 2.4. Germany's biocapacity is estimated at 0.7 global hectares and its footprint at 4.7; that of the United States is 5.3 global hectares and its footprint is 9.7. Other examples include China (1.0 biocapacity, 1.5 footprint), India (0.7 biocapacity, 0.8 footprint) and Kenya (balancing out at 1.1 and 1.1).

This report makes the point that addressing sustainability is meaningless unless backed up by measurable, timed commitments. The Ecological Footprint accounts measure how much productive land and water a population requires for the resources it consumes, and for absorption of its waste using prevailing technology. The report is downloadable at *www.redefiningprogress.org/publications/ef1999.pdf.*

For more information, contact: Craig Cheslog, Media Center, Redefining Progress, 1904 Franklin Street, 6th Floor, Oakland, CA 94612, USA, Tel: +1 510 444 3041, ext. 305, Fax: +1 510 444 3191, Email: communications@redefiningprogress.org, Internet: www.redefiningprogress.org. ◆

New report examines NAFTA's environmental record

To mark the tenth anniversary of the signing of the North American Free Trade Agreement, the Commission for Environmental Cooperation has released a report detailing NAFTA's effects on the environment, *Free Trade and the Environment: The Picture Becomes Clearer.* Among the findings of this report:

- Air pollution in some US-Canada and US-Mexico border communities has become worse since December 1992. Increased road freight transport has led to higher pollution concentrations at border crossing points.
- There is little evidence of a "race to the bottom". Differences in environmental regulations have not been a significant factor in determining where business investments are made.
- The petroleum, base metals and transportation equipment sectors have all experienced marginal increases in pollutant emissions. By contrast, NAFTA-related contraction in Canada's base metals industry coincides with a reduction in toxic releases from that industry.

New voluntary initiatives in the United States

In recent months the United States has introduced a number of initiatives intended to reduce atmospheric emissions and other environmental pressures. Among them are:

- SmartWay Transport, a voluntary partnership between the US Environmental Protection Agency and leading multinational corporations to improve the environmental performance of rail and road freight transport, which together account for 36% of US nitrogen oxide (NO_x) emissions from transport and 29% of the sector's greenhouse gas emissions. Thirteen "charter partners" have committed to develop company-specific targets and identify cost-effective ways to save fuel. Among SmartWay's goals is reduction of annual CO_2 emissions by up to 18 million tonnes per year – and of NO_x emissions by up to 200,000 tonnes a year – by 2012. The partners are Canon, Coca-Cola, CSX, Federal Express, HEB Grocery, Ikea, Interface, Nike, Norm Thompson Outfitters, Roadway, Schneider National, UPS and Yellow Transportation.
- An agreement with Canada to jointly develop new cooperative projects to continue improving transborder air quality. The US announced a similar agreement with Mexico earlier. Among areas to be emphasized are sustainable development through partnerships, coordinated border airshed management, and improved understanding of transboundary movements of air pollution.
- "Climate VISION" (Voluntary Innovative Sector Initiatives: Opportunities Now), a US Energy Department programme. This voluntary public-private partnership will pursue cost-effective ways to reduce projected growth in GHG emissions, building on sectoral strategies.

In related news, the US EPA announced its first

European Commission launches CSR forum

The European Commission has launched a multi-stakeholder, pan-European initiative to reach a common understanding of corporate social responsibility. It is also intended to enhance this concept's credibility and effectiveness for meeting EU economic, social and environmental aims. The European Multi-Stakeholder Forum on Corporate Social Responsibility (CSR EMS Forum) brings together enterprises, trade unions, NGOs, investors, consumers and other stakeholders to promote innovation, convergence and transparency with respect to CSR practices, as well as tools such as codes of conduct, labels, reports and management instruments.

The CSR EMS Forum has been described as the centrepiece of the Commission strategy for promoting CSR and sustainable development. Enterprise Commissioner Erkki Liikanen calls CSR "a societal challenge that businesses have an interest in taking on, both to remain competitive and to ensure a positive business contribution to sustainable development." He adds that "SMEs also have an important role to play in this area, as they constitute the majority of Europe's businesses."

The European Commission will chair the forum, which will be made up of almost 20 EU-level representative organizations of employers, other business organizations, and groups representing employees and civil society. Additional institutions and organizations will have observer status. There will be roundtables on four themes: improvement of CSR knowledge, and facilitation of exchange of experience and good practice; SME issues, including how to foster the idea of CSR among smaller businesses; diversity, convergence and transparency of CSR practices and tools; and development aspects of CSR.

For more information, contact the office of Erkki Liikanen, Commissioner for Enterprise and the Information Society, rue de la Science 15, B-1049 Brussels, Belgium, Email: erkki.liikanen @cec.eu.int, Internet: www.europa.eu.int/comm/enterprise/csr/forum.htm

fuel economy and emission certification of a zero-emission vehicle that uses hydrogen fuel cells. The EPA's National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan, is the first US federal facility capable of testing and certifying a fuel cell vehicle. The car undergoing this process was the 2003 Honda FCX.

For more information, contact: US Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Mail Code 3213A, Washington, DC 20460, USA, Tel: +1 202 564 4355, www.epa.gov/newsroom; or Jill Schroeder Vieth, Department of Energy, 1000 Independence Ave., SW, Washington, DC 20585, USA, Tel: +1 202 586 4940, Fax: +1 202 586 9987, Email: jill.schroeder@hq.doe.gov, Internet: http://energy.gov/index.html. ◆

Environmental actions by EU institutions

In a flurry of legislation in early 2003, EU institutions proposed or adopted several directives and other measures dealing with environmental issues. For example, the European Commission:

- approved a new directive banning marketing and use of a further azo-dye, in this case a chromate-based chemical found to endanger fish and other aquatic organisms. The ban takes effect from 30 June 2004. The EU had already restricted the marketing and use of many carcinogenic azo-dyes;
- adopted a new directive banning use of arsenic in treating wood for consumer applications, effective no later than 30 June 2004. Arsenic has long been used to preserve wood and increase product life;
- proposed legislation to reduce emissions from diesel engines used in a wide range of non-road machinery. This legislation would also help promote inland waterway shipping and railways as environmentally friendly transport modes. It would help ensure that future diesel engines are equipped with particulate filters. The proposal, developed in close cooperation with US and Japanese authorities so as to set global emission limits, represents Stage III of current legislation on emissions from non-road diesel equipment. It would come into force in phases between 31 December 2005 and 31 December 2011, with a technical review in 2006;
- introduced a new proposal to greatly reduce the amount of VOCs in certain paints and varnishes. This would constitute the first EU-wide limits on solvent content in paints, varnishes and vehicle refinishing products. Limits would come into effect in two phases, in 2007 and 2010. VOC emissions are directly related to ground-level ozone, a widespread and chronic environmental problem in EU countries. The products covered would include wall primers and paints and those applied on woods and metals at home.

The European Parliament also passed laws that:

- require much lower amounts of sulphur in petrol and diesel by 2005, with a total phase-in of "sulphur free" fuels by 2009. Final approval has followed years of debate on the timetable. This law establishes a maximum level of 50 ppm of sulphur by 1 January 2005, compared with current limits of 150 ppm for gasoline and 350 ppm for diesel;
- ban most testing of cosmetics on animals in the EU by 2009, along with sale of any cosmetics tested on animals anywhere in the world. The compromise measure allows three types of tests to continue until 2013, so that alternatives can be developed. Britain, Germany, Austria, Belgium and the Netherlands have already banned cosmetics tests on animals, but they have not halted the import of products tested on animals abroad. The new law will not ban existing products tested on animals in the past.

For more information, contact the office of Margot Wallström, Commissioner for the Environment, B-1049 Brussels, Belgium, Tel: + 32 2 298 1800, Fax: + 32 2 298 1899, Email: Margot.Wallstrom@cec.eu.int, Internet: http://europa.eu.int/comm/environment/index_en.htm. ◆

ECE agrees PRTR treaty

After some two years of negotiations under the auspices of the UN Economic Commission for Europe (ECE), over 30 European and Central Asian countries (plus Canada) reached agreement on a draft treaty extending the public's right to know about chemical waste and toxic pollutants in their neighbourhoods. The treaty, to be signed later in the spring in Kiev, Ukraine, covers disposal, storage, recycling and treatment of dangerous materials ranging from minerals to metals, fertilizers and hydrocarbons.

This treaty will be a legally binding protocol to the 1998 Aarhus Convention, the main UN convention on environmental democracy issues. Signatories undertake to establish national registers of industrial pollutants released to water, air and soil. Such pollutant release and transfer registers (PRTRs) must be publicly accessible, user-friendly and updated annually with information on 86 substances including greenhouse gases, acid rain precursors, heavy metals and carcinogens. Refineries, thermal power stations, chemical and mining concerns, waste incinerators and large farms will be required to submit reports.

For more information, see: www.unece.org/env/pp/press.releases/prtr. ◆

Sweden increases pledge to GEF

Sweden has pledged an additional 100 million kronor (US$ 12 million) to the Global Environment Facility (GEF), raising its total commitment for the next four years to 764 million kronor. The Swedish government explained that it was increasing its contribution to allow the GEF to better promote environmental projects in developing countries. The GEF helps transition economies and developing countries fund projects and programmes to protect the global environment, working in areas such as biodiversity, climate change, persistent organic pollutants (POPs), desertification and the ozone layer. It is implemented by UNEP, UNDP (the UN Development Programme) and the World Bank.

For more information about GEF activities, see: www.gefweb.org. ◆

FAO and WHO initiate food safety trust fund

The Food and Agriculture Organization (FAO) and the World Health Organization (WHO) have initiated a US$ 40 million trust fund to help the world's less developed countries participate in the Codex Alimentarius Commission, the joint food safety body run by the two UN bodies.

Switzerland has made the first contribution to the FAO/WHO Project and Fund for Enhanced Participation in Codex, which is expected to run for 12 years. There are 168 Codex Alimentarius Commission (Codex) member countries. Many developing countries, especially the least developed, have not fully participated in its work because of the costs involved. The new fund will help some 120 developing countries and countries in transition increase their participation.

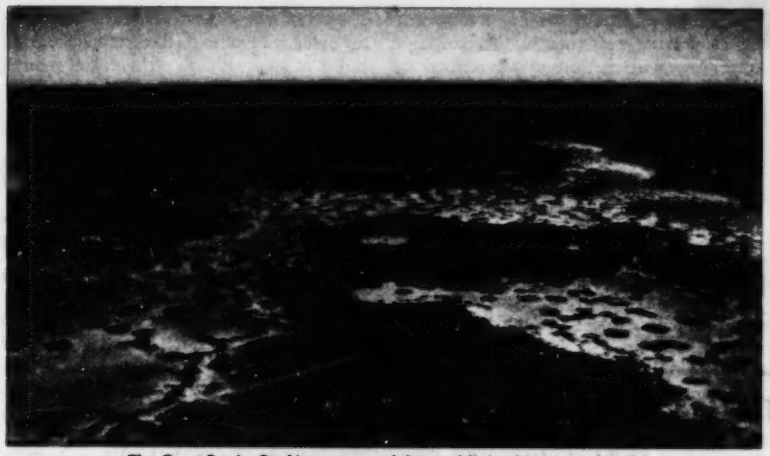
For more information, contact: Gregory Hartl, Communications Adviser, WHO, Avenue Appia 20, 1211 Geneva 27, Switzerland, Tel: +41 22 791 4458, Mobile: +41 22 79 203 6715, Fax: + 41 22 791 3111, Email: hartlg@who.int, Internet: www.codexalimentarius.net. ◆

Australia and Taiwan on the plastic bag ban bandwagon

Australia has joined the growing number of countries cracking down on plastic bags, announcing a programme aimed at reducing plastic litter by 38 million bags by the end of 2004. Environment Minister David Kemp said measures being considered include charges on plastic bags and "ambitious" recycling targets for retailers.

"The challenge for Australia is not the 6.9 billion plastic bags used each year, but the 50 to 80 million that end up as litter," he said. "We must stop this incredible number of bags finding their way into the litter stream, where they are lethal to marine and other wildlife." Kemp explained that, under a voluntary code of practice, retailers would be asked to meet a 50% recycling and reduction target for use of lightweight plastic bags over the next two years, among other measures.

Meanwhile, new curbs on plastic bags and tableware in Taiwan drew thousands of plastics industry workers into Taipei streets, where they took part in protest marches. The policy, in effect since 1 January 2003, requires restaurants and



The Great Barrier Reef is now one of the world's healthiest coral reefs

retailers (except street vendors) to charge customers for plastic bags and disposable utensils in a bid to reduce total garbage volume by around 30%. Unions have feared this policy could cost some 50,000 jobs at a time when the unemployment rate is at or near record highs. But Hau Lung-bin, head of the Environmental Protection Administration, said the government was determined to support the new policy.

For more information, contact: Public Affairs Section, Environment Australia, GPO Box 787, Canberra ACT 2601, Tel: +61 2 6274 1019, Fax: +61 2 6274 1094, Email: public.affairs@ea.gov.au, Internet: www.ea.gov.au; and Environmental Protection Administration, 41, Section 1, Chung-Hua Road, Taipei, Taiwan, Tel: +886 2 2311 7722, Fax: +886 2 2311 6071, Email: mail@sun.epa.gov.tw, Internet: www.epa.gov.tw/english ◆

Coral reef warnings

Destruction of the world's coral reefs threatens hundreds of thousands of jobs, jeopardizes billions of dollars in income for poor countries, and could prevent researchers developing valuable medical products, according to a new WWF report. Uncontrolled tourism and coastal development, overfishing, pollution and global climate change have already resulted in the loss of 27% of coral reefs, and the loss could reach 60% within 30 years, the report says.

One of the most famous coral reefs, the Australian Great Barrier Reef, is the subject of two other recent reports. The Australian Institute of Marine Science says the Great Barrier Reef has recovered from severe bleaching and is now one of the world's healthiest coral reefs. According to its report, about 6% of the vast reef off Australia's northeast coast is affected by coral bleaching, compared with almost 60% a few years ago. However, Australia's Productivity Commission warns that soil erosion and fertilizer and chemical runoff continue to present a significant threat, particularly to the reef's inner areas.

Water quality in rivers entering the Great Barrier Reef lagoon has declined due to the presence of diffuse pollutants, especially sediments, nutrients and chemicals from cropping and grazing lands, says the Productivity Commission report. Thus no single policy measure could reduce threats to the reef at reasonable cost. The Commission recommends combinations of measures. It suggests removing "perverse" farm incentives, targeted incentive payments and (in high-hazard areas) "smart" regulation. It says industry associations, farmer groups and other stakeholders should also address such threats.

In addition, a three-dimensional underwater film about the world's coral reefs has premiered in Boston (USA). *Ocean Wonderland 3D*, produced in collaboration with UNEP, shows the immense diversity of coral reefs' marine life and the dangers threatening and destroying the reefs.

For more information, contact: Peter Bryant, WWF, Endangered Seas Programme, Tel: +41 22 364 9028, Email: pbryant@wwfint.org; or Clair Angel, Media and Publications, Productivity Commission, Tel: +61 2 6240 323, Internet: www.pc.gov.au. ◆

IFC is guarantor in bond issue for water treatment

The World Bank's International Finance Corporation has entered the municipal finance market, offering a peso-denominated credit guarantee of up to US$ 3 million to a private Mexican trust that will issue as much as US$ 8.8 million in bonds in local capital markets for a water conservation project.

Proceeds from bond sales will be used to provide a loan to pay for the building of a waste water treatment plant by the Tlalnepantla Municipal Water Company. Household and industrial sewage in Tlalnepantla currently flows into a drainage canal of the Rio San Javier.

"This project is pioneering in several ways," says Peter Woicke, head of the IFC. "Not only is this the IFC's first direct municipal finance deal, but it is helping to create a new asset class in a local currency so that long-term infrastructure projects can be financed by local institutional investors."

For more information, contact: Corrie Shanahan, IFC, Tel: +1 202 473 2258, Email: cshanahan@ifc.org, Internet: www.ifc.org ◆

Water issues come to the fore

A UN report by 23 bodies, including UNEP, forecasts that depletion of world water reserves, population growth, pollution and climate change will combine to reduce the average person's water supply by one-third by 2023.

In a report published for the Third World Water Forum in Kyoto (16-23 March 2003), the World Water Assessment Programme, headquartered at UNESCO in Paris, said political leaders are not only failing to act on the world water crisis but in some cases even argue that it does not exist.

The report ranks over 180 countries and territories in terms of the amount of renewable water resources available per capita, meaning all the water circulating on the surface, in the soil or in aquifers. By the middle of this century, at the worst 7 billion people in 60 countries will be faced with water scarcity – at the best 2 billion in 48 countries, depending on factors such as population growth and policy making. Climate change will account for an estimated 20% of the increase in global water scarcity, the report says.

The massive hydraulic works recently announced by China illustrates the magnitude of the problem and some of its possible long-term environmental consequences. Chinese engineers have begun work on a project to carry some 40 billion cubic metres (1.4 trillion cubic feet) of water per year from southern coastal and interior areas to a northeastern region in which there are at least 50 million people, 39 major cities and around 245 smaller cities.

The project concerns three circuitous routes, an elaborate series of pumping stations and dams, and some of China's largest lakes and waterways including the Yangtze and Yellow rivers. Government officials have said that every effort would be made to minimize environmental effects, which critics have warned could be catastrophic. Some observers fear that, in addition, the water will be too polluted for agricultural and household use.

Anticipated benefits are expected to be felt starting in 2007, when the first phase is scheduled to be finished. The entire project will continue to at least 2025, say officials. The cost of the first two phases is estimated at US$ 15 billion, funded through government budgets, loans and water charges. About 300,000 people, mostly farmers, are to be relocated.

For more information, contact: Amy Otchet, UNESCO Bureau of Public Information, Editorial Section, Tel: +33 (0) 1 45 68 17 04, Fax: +33 (0) 1 45 68 57 59, Email: a.otchet@unesco.org, www.unesco.org/water/wwap.

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Capital investment and climate change policy

Patterns of capital investment by business can have a major effect on the success and cost-effectiveness of climate change policies, says the Pew Center on Global Climate Change. Capital equipment such as power plants, factories and transport infrastructure is a major source of greenhouse gas emissions, according to their study, *Capital Cycles and the Timing of Climate Change Policy*.

In introducing this report, Eileen Claussen, president of the Pew Center, said that the high cost of new capital makes companies reluctant to retire relatively inefficient equipment. "Replacing existing capital stock with more efficient technologies will take time, but that process can be encouraged by certain policies," she added.

The report examines capital cycles (patterns of capital investment and retirement) and their implications for climate change policy. The authors analyzed the literature on investment patterns and conducted in-depth interviews with top decision makers in major US-based companies. They found that, without policy or market incentives, expected equipment lifetimes and the availability of more efficient technologies are not significant factors in capital stock decisions. The report recommends stimulating faster turnover of capital stock by offering early, consistent incentives for retirement of old, inefficient equipment; ensuring that policies do not discourage capital retirement; and pursuing policies that shape long-term patterns of capital investment.

For more information, contact: Katie Mandes, Tel: +1 703 516 4146, Internet: www.pewclimate.org/projects ◆

Other climate change news

Investors who do not take account of climate change in asset allocation and equity valuation face serious repercussions, the chairmen of the 500 largest global companies (by market capitalization) agree in a new survey. The Carbon Disclosure Project, which conducted the survey, is a joint effort of 35 major institutional investors representing over US$ 4 trillion in assets. While 80% of respondents acknowledge the importance of climate change as a financial risk, only 35-40% were taking action to address climate change risks or opportunities. The full report, including executive summary and responses, is available on-line (*www.cdproject.net*).

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According to Britain's Royal Commission on Environmental Pollution, aircraft emissions are likely to be a major contributor to global warming if upward trends in air traffic continue. The commission chairman, Sir Tom Blundell, warned in a special report that "if no limiting action is taken, the rapid growth in air transport will proceed in fundamental contradiction to the UK government's stated goal of sustainable development". Citing projected growth in short-haul air travel, the report urges a shift back towards rail transport for many such journeys (*www.rcep.org.uk*).

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The first study by the World Energy Council's programme of research to reduce greenhouse gas emissions in the Asia Pacific region will involve promoting foreign investment in the Tararua wind farm project, in return for carbon credits, reports New Zealand's Energy Federation. Future studies are likely to allow wealthy nations to earn "credits" for greenhouse gas reductions by helping poor countries with energy projects that reduce emissions (*www.stuff.co.nz/stuff/0,2106,2323532a7693,00.html*).

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The European Commission proposes strengthening the EU system of GHG emission monitoring to comply with Kyoto Protocol obligations, thus helping the EU and its Member States meet their commitments under the protocol. The improved system will further harmonize emission forecasts and reinforce EU rules on GHG monitoring. It will also cover the protocol's "flexible mechanisms" (emissions trading, the Clean Development Mechanism and Joint Implementation) and enable not only emissions but also emission rights to be monitored. In a related development, EU environment ministers agreed to establish an EU-wide GHG emission trading system; if approved by the European Parliament, this system would cap the amount of CO_2 large installations can emit, from 2005, and allow them to trade emission rights with companies in other EU countries (*http://europa.eu.int/comm/environment/ index_en.htm*).

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Rabobank International has signed a framework agreement with the Dutch Ministry for Housing, Planning and the Environment to contract 10 million tonnes of GHG emission reductions from sustainable energy projects in developing countries under the Clean Development Mechanism. This is the first such agreement between the Dutch government and a private financial institution (*www.rabobank.com*).

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Fourteen organizations, including several large corporations, have formed the Chicago Climate Exchange, or CCX. They have entered into a legally binding agreement to cut their greenhouse gas emissions by 4% within four years. Members exceeding their reduction target will be able to sell carbon credits to those that fall short. Trading, to begin later this spring, will include "sinks" – farm and forestry projects that help reduce GHG concentrations in the atmosphere – and "offsets," or emission reduction projects in other countries. CCX is the first exchange of its kind in the United States. Members are American Electric Power, Baxter International, the city of Chicago, DuPont, Equity Office Properties Trust, Ford Motor, International Paper, Manitoba Hydro, MeadWestvaco, Motorola, STMicroelectronics, Stora Enso, Temple-Inland and Waste Management (*www.chicagoclimatex.com*).

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Institutional investors who hold shares in CCX member American Electric Power and the other four largest US power utilities have filed resolutions demanding that the companies make public the economic risks of air pollutants they emit. Much of the risk on which shareholders seek to shed light involves compliance with future global warming regulations. The other companies are Southern Co., Cinergy Corp., Xcel Energy and TXU Corp. The five companies are also the largest US CO_2 emitters. This action was led by the Connecticut state pension funds (*www.state.ct.us/ott*).

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Total US GHG emissions fell by 1.2% in 2001, by far their largest decrease in the last decade, largely thanks to a warm winter and less than robust economy, the Energy Department's Energy Information Administration reports. Emissions were still 11.9% higher than in 1990 (*www.eia. doe.gov*).

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Rivers flowing into the Arctic Ocean pour increasing amounts of freshwater into the ocean – a trend that, unchecked, could disrupt climate patterns and ocean circulation throughout the far north, according to researchers at the Marine Biological Laboratory in Woods Hole, Massachusetts. In a report published in *Science*, they note that diluting ocean water could disrupt the sinking of salt-heavy water layers and thus the circulation of warmer waters to the North Atlantic. Climatologists have blamed the increased freshwater flows on global warming (*www.mbl.edu*).

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Slightly warmer temperatures linked to climate change have "significantly" altered the lives of hundreds of species, in ways ranging from earlier bird nesting and flower blooming to shorter hibernation and shrinking butterfly ranges. Reporting in *Nature*, researchers cite "long-term, large-scale alterations of animal and plant populations." They say the combination of climate change with pressures such as drought and habitat destruction could pose the greatest challenge to conservation in the 21st century (*http://cesp.stanford.edu/news*). ◆

Industry updates

ChevronTexaco offers free GHG management system

ChevronTexaco has made its system for estimating and managing GHG emissions and energy use available free of charge to energy companies worldwide, in order to promote standardization of methodologies and comparability in GHG inventory information. The SANGEA™ Energy and Emissions Estimating System 2.0 is an automated electronic data management system designed to gather greenhouse gas emissions and energy usage data from exploration and production, refining and marketing, petrochemicals, transportation, electricity generation, manufacturing, real estate and coal activities.

For more information, contact: ChevronTexaco, 6001 Bollinger Canyon Rd., San Ramon, CA 94583, Tel. +1 925 842 1000, Internet: www.chevrontexaco.com/news/press. ◆

Wind power capacity increases in Europe and worldwide

Global installed wind power capacity grew by 28% in 2002, the American Wind Energy Association and European Wind Energy Association report. The number of installed wind turbines in Germany, the world's largest wind power market, rose 22% in 2002. The German electricity industry association said meanwhile that overall power production from renewables rose around 18%, with "green" power accounting for 8% of total production compared with 6.5% in 2001. Spanish wind power capacity grew 44% in 2002, making Spain the second largest producer of wind power after Germany. No. 3 in the market, the US wind power industry, reported that capacity had increased by nearly 10% in 2002.

The Energy Information Administration (EIA) reports that US consumption of electricity generated from renewable sources was at a 12-year low in 2001. Use of renewables fell by 12% and their share of US energy consumption dropped to 6%, mainly because hydropower generation was down by 23% due to lower snow-pack levels and rainfall. The exception was wind power, whose consumption increased.

For more information, contact: Christine Real de Azua, American Wind Energy Association, Tel: +1 202 383 2508, Email: windmail@awea.org, Internet: http:// www.awea.org; Luisa Colasimone, European Wind Energy Association, Tel: +32 2 546 1981, Fax: +32 2 546 1944, Email: ewea@ewea.org, Internet: www.ewea.org; Energy Information Administration, 1000 Independence Avenue, SW, Washington, DC 20585, USA, Tel: +1 202 586 8800, Email: infoctr @eia.doe.gov, Internet: www.eia.doe.gov. ◆

Industry funding for alternative energy research

ExxonMobil, General Electric, Schlumberger and other companies have agreed to fund a major research project at Stanford University in California to develop alternative energy sources. Exxon Mobil is investing US$ 100 million, GE US$ 50 million and Schlumberger US$ 25 million in the Stanford University Global Climate and Energy Project.

Administrators of the project also say that E.ON, Europe's largest private energy service provider, had "signaled its intention" to contribute US$ 50 million. The university reports that the goal is "to develop technologies that foster the development of a global energy system where greenhouse emissions are much lower than today."

For more information, contact: Bill Romanelli or Nancy Heffernan, APCO Worldwide, Tel: +1 916 554 3400, Internet: http://gcep.stanford.edu. ◆

Bid to boost southern Africa tourism revenue

South Africa, Mozambique and Zimbabwe, hoping to increase tourism revenue in southern Africa, have opened Africa's biggest national park. The Great Limpopo Transfrontier Park covers an area roughly the size of Belgium. South African President Thabo Mbeki said at the opening ceremony: "The successful merging of our individual parks ... increases the challenge on all of us to ensure that we create the correct conditions for the balanced development and advancement of our countries." Great Limpopo combines South Africa's Kruger National Park, Mozambique's Limpopo Park and Zimbabwe's Gonarezhou Park.

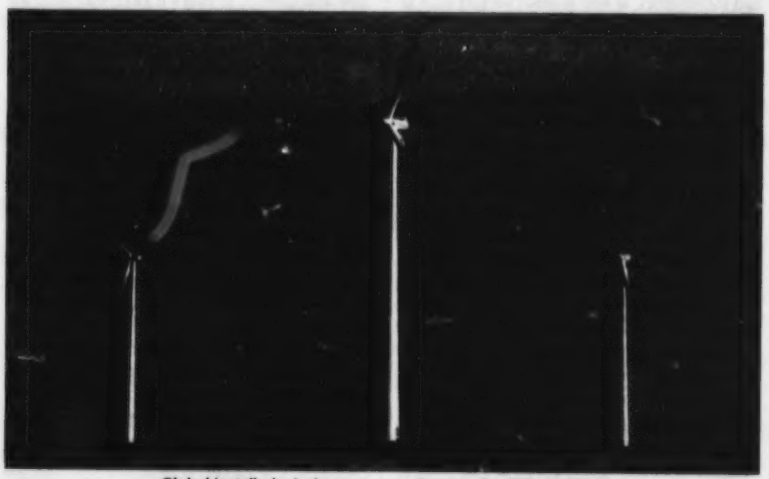
For more information, contact: Public Relations Department, Kruger National Park, South Africa, Tel: +27 13 735 4363, Fax: +27 13 735 4053, Email: williamm@parks-sa.co.za, Internet: www.gkgpark.com. ◆

Managing e-waste

Braun, Electrolux, HP and Sony are teaming up to evaluate, develop and operate a common waste management procurement platform designed to meet the needs of the electric and electronic goods market, the companies have announced. They said the initiative, anticipating the EU Waste Electrical and Electronic Equipment Directive, promotes cost-efficiency, individual producer responsibility and innovative recycling strategies in the European market.

The initiative is open to other companies. Belgium, the Netherlands, Norway, Sweden and Switzerland have national electronics recycling laws. In each country a single national consortium represents manufacturers' only option. The Braun-Electrolux-HP-Sony initiative is intended to complement and support existing consortia, or to develop alternative approaches.

In North America 15 private electronics recycling firms, representing 22 facilities, have joined forces with environmental NGOs and agreed to meet the rigorous environmental and social criteria in the Electronic Recycler's Pledge of True Stewardship. The pledge was developed in conjunction with members of the Computer Take-



Global installed wind power capacity grew by 28% in 2002

Back Campaign.

Adopting the slogan "No Export, No Dumping, No Prisons" the signatories have agreed, among other requirements, to prevent hazardous e-waste from being sent to municipal incinerators or landfills or being exported to developing countries, and to use free-market labour rather than prisoners to dismantle or recycle e-waste.

The launch of the pledge marked the first anniversary of the release of *Exporting Harm: The High-Tech Trashing of Asia*, a report revealing that 50-80% of electronic waste collected for recycling in North America was being sent to developing countries such as China, India and Pakistan and often dumped in the environment or recycled in toxic operations, resulting in occupational disease.

For more information, contact: Elisabeth Kallenberger, Brand Communication, Tel: +49 6173 30 2543, Email: elisabeth_kallenberger@gillette.com; Claire Gonell, Email: claire.gonell@electrolux.co.uk; Ingrid Janson, Tel: +41 58 444 5528, Email: ingrid.janson@hp.com; Sylvia Shin, Tel: +49 30 2575 5156, Email: sylvia.shin@eu.sony.com; or David Wood, Computer TakeBack Campaign, +1 608 232 1830. ◆

New report on sustainable development reporting

The World Business Council for Sustainable Development has made available a new report on sustainable development reporting. The authors of *Striking the Balance* (Rabobank CEO Bert Heemskerk, STMicroelectronics CEO Pasquale Pistorio, and Martin Scicluna, Managing Partner for Global Strategic Clients at Deloitte Touche Tohmatsu) say mounting pressure from major stakeholders for companies to disclose information on a wider range of issues is shifting reporting from voluntary undertakings to mandatory requirements.

The WBCSD describes *Striking the Balance* as a complement to other initiatives guiding companies' environmental and social reporting, such as the Global Reporting Initiative (GRI). The report can be downloaded in PDF. It is supplemented by an online "reporting portal" featuring best practices of around 50 WBCSD members.

For more information, contact: Geneviève Tremblay, WBCSD, Tel +41 22 839 31 08, Email: tremblay@wbcsd.org, Internet: www.wbcsd.org/newscenter/media.htm. ◆

UNEP FOCUS

Governing Council decisions

Environment ministers from over 130 countries at UNEP's 22nd Governing Council meeting reached a number of agreements to help put the WSSD Plan of Implementation into operation. Decisions at the event at UNEP headquarters in Nairobi, attended by over 1000 delegates, included a global crackdown on mercury pollution, based on a global assessment report highlighting the threat to humans and wildlife from this heavy metal.

Also in Nairobi, UNEP announced a pioneering new initiative to encourage the marketing of "cool" lifestyles as a key to selling green products and changing consumption patterns. The effort, spearheaded by UNEP DTIE's Production and Consumption Unit, enlists psychologists and human behaviourists to provide expert advice.

In other key actions, environment ministers:

- asked member countries to provide input by 1 October 2003 for guidelines on corporate environmental and social responsibility, accountability and transparency;
- approved a US$ 130 million Environment Fund budget for 2004-05;
- re-emphasized their commitment to Africa and the environmental component of the New Partnership for African Development, and welcomed progress in phasing out lead from petrol in Africa;
- encouraged further efforts to enhance the engagement of civil society in UNEP's work, especially mentioning programmes concerning children/youth and sports.

Under the mercury action plan agreed at the Governing Council, UNEP is to assist all countries (but particularly developing countries and economies in transition) to cut emissions of mercury from sources such as coal-fired power stations and incinerators, as well as lesser sources such as contaminated waste sites and dental amalgams and equipment.

Ministers were told that coal power stations and waste incinerators account for around 70% of new anthropogenic mercury emissions to the atmosphere, with the bulk of these coming from developing areas, especially Asia.

UNEP Executive Director Klaus Toepfer said: "We have been meeting to make the Plan of Implementation, agreed five months ago at the World Summit on Sustainable Development, operational. In Johannesburg, it was agreed that by 2020 chemicals should be used and produced in ways that minimize significant adverse effects on human health and the environment. This decision on mercury sets us on course for delivering that in respect of one of the most worrying heavy metals."

An example of increasing concern over mercury contamination was provided just days after the Governing Council meeting ended, when the UK Food Standards Agency warned pregnant women, breastfeeding women, and those planning babies to eat no more than two medium-sized cans of tuna a week because of a low risk that mercury in the fish could harm an unborn child's developing nervous system.

Concerning the sustainable lifestyles and consumerism initiative, Toepfer noted that experts believe the traditional messages from governments and green groups, urging the public to adopt environmentally friendly habitats, are too "guilt-laden" to be effective. "Messages from governments exhorting people to drive their cars less or admonishing them for buying products that cause environmental damage appear not to be working. People are simply not listening. Making people feel guilty about their lifestyles and purchasing habits is achieving only limited success. ... We need to make sustainable lifestyles fashionable and 'cool' ... to make it clear that there are real, personal, benefits to living in harmony with the planet."

UNEP experts cited campaigns by Korean car-maker KIA and the European detergent industry as examples of selling positive, environment-friendly consumerism and lifestyles. KIA's UK campaign urges people not to use cars for short journeys, provides a mountain bike with every new car purchased, and helps organize networks of parents to walk children to school. The European "Wash Right" campaign promotes low-temperature washing. It emphasizes the benefits to clothes as well as the energy savings.

The new effort, part of UNEP DTIE's Sustainable Consumption programme and the UNEP-SETAC Life Cycle Initiative, complements programmes to develop a global network of cleaner production centres. Young people from around the world sent a statement to ministers in Nairobi saying that "We commit to awareness raising campaigns to lifestyle change at a community

UNEP environmental assessment report on Afghanistan

Ahmad Yusuf Nuristani, Afghanistan's Minister of Irrigation, Water Resources and Environment, told the Governing Council meeting that 99% of the internationally significant Sistan wetlands – shared between Afghanistan and Iran – have dried up since 1998.

Other findings from UNEP's *Afghanistan Post-Conflict Environmental Assessment* report show that two decades of warfare in Afghanistan have so degraded the environment that this problem is a major stumbling block for reconstruction efforts.

The Helmand River, the main tributary of the wetlands, drains 31% of Afghanistan's land area. It has been running as much as 98% below its annual average after four years of drought, which has compounded problems caused by inadequate management of the river basin's dams and irrigation projects.

The wetlands have significant potential for nature tourism. They meet the criteria for designation as a UNESCO World Heritage Site, but in 2001 were at the front lines of fighting. Some areas are heavily mined.

The UNEP assessment was carried out in 2002 by 20 international scientists and Afghan experts, who examined 38 urban sites in four cities and 35 rural locations.

The report can be downloaded from http://post-conflict.unep.ch. *See also review on p. 53.*

level and request governments to further encourage sustainable consumption. We support the UNEP YouthXChange programme as an excellent example of work in this field."

Jacqueline Aloisi De Larderel, Director of DTIE and Assistant Executive Director of UNEP, told the Governing Council that " Sustainable consumption is not about consuming less, it is about consuming differently, consuming efficiently, and having an improved quality of life. It also means sharing between the richer and the poorer. This is not just an issue for so-called rich countries. Many rapidly industrializing, developing countries such as China are keenly aware of the environmental threats posed by uncontrolled consumerism and the risks of not making products environmentally friendly."

The UNEP initiative also involves compiling "green procurement" information for governments and local authorities. "Many developing countries are keen to buy environmentally sound products and services but do not know where to go. We are developing an information network and Internet service so that if they, say, want to buy environmentally friendly pens or vehicles, they know where to go," said Bas De Leeuw of UNEP DTIE.

Delegates also welcomed progress in Africa on phasing out lead from petrol and emphasized the need to press ahead with similar phase-outs in other areas such as paints and household water pipes. A survey by UNEP, which is a leading member of the global Partnership for Clean Fuels and Vehicles, shows that Egypt, Libya, Mauritius and Sudan are already fully lead free, and will be joined this year by Morocco, La Réunion, Tunisia and Western Sahara.

Countries backed a new effort to strengthen environmental laws and enforcement, especially in developing countries and economies in transition. The initiative grew out of the Global Judges Symposium held at WSSD.

One of the most intensively debated issues concerned the setting up of an intergovernmental Panel on Global Environmental Change. It was decided to invite governments, NGOs, intergovernmental organizations and scientific bodies to submit their views to Klaus Toepfer on issues such as gaps in knowledge of global environmental change. A report is to be prepared and submitted to the 2004 Global Ministerial Environment Forum.

Countries also gave backing to more joint UNEP-UNESCO research on links between the environment and cultural diversity, and endorsed a new UNEP report on the environmental situation in the Occupied Palestinian Territories, agreeing on a special plan for the environment there.

For more information, contact: Eric Falt, Spokesperson/Director, UNEP's Division of Communications and Public Information, Tel: +254 2 623292, Mobile: +254 0 733 682656, Email: eric.falt@unep.org; or (on the lifestyles project) Bas de Leeuw, UNEP DTIE, Tel: +33 1 44 37 30 09, Email: bas.deleeuw@unep.fr. ◆

New funding for ODS phase-outs

Negotiators from some 140 governments have adopted a US$ 573 million funding package to halve developing countries' consumption and production of CFCs (the greatest destroyer of the stratospheric ozone layer) by 2005, relative to a baseline of average 1995-97 levels. The funds will also finance projects to reduce other substances targeted for phase-out under the Montreal Protocol.

"Eliminating CFCs and other ozone-depleting substances in developing countries is the top priority today for the global campaign to return our protective ozone layer to health," said Shafqat Kakakhel, UNEP Deputy Executive Director.

The funding levels agreed are the highest so far. The funds replenish the protocol's Multilateral Fund for 2003-05. They include $474 million in new contributions, $76 million in contributions that were not allocated in 2000-02, and $23 million from interest and other sources.

The fund's Executive Committee has approved expenditure of $82 million for new projects in developing countries, to complete the phase-out of CFC consumption in industrial processes in Nigeria and the Philippines and in Indonesia's refrigeration industry, and to end CFC production in Argentina – as well as most of China's production and consumption of carbon tetrachloride.

In a related development, the US Environmental Protection Agency has asked the Ozone Secretariat to allow American farmers and grain mills to keep using methyl bromide (bromomethane) beyond the final phase-out date. The insecticide fumigant, an ozone-depleting substance, is supposed to be banned in all developed countries by 1 January 2005 under the Montreal Protocol. US farm groups, which have sharply reduced its use, say they have been are unable to find effective substitutes for grain storage and for certain crops such as tomatoes, peppers, eggplant, strawberries and sweet potatoes.

The EPA has requested that US farmers be permitted to use 39% of the country's "baseline" consumption of methyl bromide, a level the agency described as "substantially below" recent consumption. "Our request will decline to 37% in 2006, reflecting our commitment to ozone layer protection and the likelihood that additional alternatives will be registered and available for use by then." A UN advisory group will make recommendations on the request in November.

For more information, contact: Michael Williams, UNEP, Geneva, Switzerland, Tel: +41 79 409 1528 (mobile), Email: michael.williams@ unep.ch; also see www.epa.gov. ◆

Old mobile phones and other waste

Leading mobile phone manufacturers have expressed their interest in working with the Basel Convention Secretariat on environmentally sound management of end-of-life telephones. During an event at the sixth Conference of the Parties to the Basel Convention, LG, Matsushita (Panasonic), Mitsubishi, Motorola, NEC, Nokia, Philips, Samsung, Siemens and Sony Ericsson signed a declaration supporting the new Initiative for a Sustainable Partnership on Environmentally Sound Management of End-of-life Mobile Phones, which is based on a product life-cycle approach.

Basel COP 6 also adopted technical guidelines on the disposal and recycling of lead-acid batteries, plastic waste, biomedical and healthcare waste and obsolete ships.

A few weeks earlier, officials from eight Asian governments met in China under the auspices of the Basel Convention to seek solutions to the growing volume of electrical and electronic waste in the region. This was the first intergovernmental meeting to be held on the e-waste problem in Asia. Participating were representatives of China, India, Malaysia, the Philippines, Singapore, Sri Lanka, Thailand and Viet Nam.

These efforts complement ongoing work by UNEP's Global e-Sustainability Initiative (GeSI) with leading players in the information and communications technology industry.

For more information, contact: Michael Williams (see above), Internet: www.basel.int and www.gesi.org. ◆

Soil biodiversity, the final frontier

Scientists are going underground in seven tropical countries to search for the largest source of untapped life left on Earth. "Conservation and Sustainable Management of Below-Ground Biodiversity", a new US$ 26 million project supported by UNEP/GEF, is aimed at unraveling the secrets of the tens of thousands of new species – tiny organisms including bacteria, fungi, insects, mites and worms – believed to await discovery just millimetres below the soil's surface.

UNEP Executive Director Klaus Toepfer said: "Harvesting the secrets of this understudied realm promises huge benefits and improved knowledge towards the goal of delivering sustainable development, towards eradicating poverty. This is one of the more unusual, curious but absolutely vital projects UNEP has undertaken."

The project is initially targeting the "below ground biodiversity" of Brazil, Mexico, Cote d'Ivoire, Uganda, Kenya, Indonesia and India.

For more information, contact: Nick Nuttall, UNEP Head of Media, Tel: +254 2 623084, Email: nick.nuttall@unep.org. ◆

The Netherlands boosts its UNEP funding

The government of the Netherlands has announced a significant increase in its funding of UNEP. Targeted at five main areas, the new funding marks a departure for one of UNEP's key backers in that it explicitly recognizes the programme's role in reducing poverty and promoting sustainable development.

The Dutch government has given UNEP considerable flexibility with respect to how it uses the extra funds, which amount to EUR 2.4 million starting in December 2002, rising to EUR 6.5 million in three years.

For more information, contact: Eric Falt (see above). ◆

Ground-level ozone monitoring station in Kenya

Nairobi has become a key player in an international effort to monitor the repair of the ozone layer and pollution from events such as forest fires and charcoal burning. A new high-tech monitoring station in that city can detect ground-level ozone emitted in East Africa by industry, transport, agriculture and biomass combustion.

In the upper atmosphere ozone acts as a shield, protecting life on Earth from solar radiation. But at ground level, as a key ingredient of smog, it can harm human health and damage tyres, electric cables and crops. Scientists are unsure how much ground-level pollution makes its way into the stratosphere and how much remains closer to the ground. The Nairobi Validation Station, the first of its kind in tropical/subtropical Africa, is meant to help solve that puzzle. Installed on the grounds of UNEP's facilities at Gigiri, it is part of a network including the European Space Agency's new ENVISAT satellite.

For more information, contact: Nick Nuttall (see above). ◆

HIGHLIGHTS

DTIE's Director retires

Jacqueline Aloisi de Larderel is retiring this spring after 15 years as head of what is now called UNEP's Division of Technology, Industry and Economics, headquartered in Paris. Mrs. Aloisi de Larderel joined UNEP in March 1987 as Director of what was then the Industry and Environment Office. Among major programme areas developed or enhanced at UNEP under Mrs. Aloisi de Larderel are:

- the Community Awareness and Emergency Preparedness Programme (1987), now the APELL ("Awareness and Preparedness for Emergencies at Local Level") programme;
- environmental management, including environmental auditing and environmental management systems;
- ozone layer protection (the Montreal Protocol was signed in 1987), with the creation of the OzonAction programme;
- cleaner production, known early on as "clean technology," "waste minimization" or "low- and no-waste technology";
- sectoral focuses on areas such as energy/transport, mining/minerals, and tourism;
- sustainable consumption and subsequently life-cycle thinking, a related concept strongly advocated by Mrs. Aloisi de Larderel;
- involvement with industry associations through annual consultative meetings and projects with the International Chamber of Commerce (ICC) and World Business Council for Sustainable Development (WBCSD);
- financial services and sustainability.

UNEP Executive Director Klaus Toepfer, who named Mrs. Aloisi de Larderel an Assistant Executive Director of UNEP in 2001, said: "Jacqueline's 15 years with UNEP have been incredibly productive. I can only speak personally for the past five years or so, but it's safe to say she has had a hand in all the best ideas coming out of UNEP ever since she joined the organization.

"One of her strongest points is the relationships she has built up over the years with private business: the proof is in UNEP's voluntary initiatives with sectors such as finance and tourism, as well as the industry sector reports published for the World Summit on Sustainable Development. But perhaps her greatest strength is twofold: her ability to explain the issues, all the while focusing on the positive.

"She led the largest of UNEP's Divisions with boundless energy, enthusiasm and dedication. For these and a multitude of other reasons, I appreciate this opportunity to say to her: thank you for your many years of service, and all the best in your endeavours for the future."

For more information, contact: Robert Bisset, UNEP Press Officer and Europe Spokesperson, Mobile: +33 6 2272 5842, Email: robert.bisset@unep.fr. ◆

China recognizes Mrs. Aloisi de Larderel

Jacqueline Aloisi de Larderel, Director of UNEP DTIE and Assistant Director of UNEP, recently received an environmental award in Beijing recognizing her work promoting environmental protection in China. She was cited mainly for encouraging cleaner production and helping China with international technical assistance, training and cooperation in fields such as sustainable tourism, protection of the ozone layer, persistent organic pollutants (POPs) and management of urban environment.

The Award for International Cooperation on Environmental Protection, established by the State Environmental Protection Administration in 2002, is given to foreigners who contribute significantly to China's environment-related work.

For more information, contact Robert Bisset (see above).

New agreement with Roteiros de Charme

A new agreement between UNEP DTIE and Brazil's Roteiros de Charme Hotel Association strengthens the NGO's ties with the private sector. Brazil has a vibrant tourism sector, given its favorable weather and rich variety of flora, fauna, and culture. Roteiros de Charme Hotel Association, a non-profit organization founded in 1992, comprises 38 independent hotels, inns and ecological refuges, from northern to southern Brazil. Its member hotels aim at preserving the 32 tourism destinations where they are established, including the Atlantic Forest and Pantanal, through conservation of their natural resources and the social well-being and environmental education of those associated with such destinations.

Roteiros de Charme members throughout Brazil are applying the principles of environmental and social sustainability, recognizing the pressure imposed by the tourism industry on the maintenance and integrity of ecosystems and biological diversity. In 1999 the Roteiros de Charme Hotel Association developed and adopted a voluntary Ethics and Environmental Code of Conduct in close cooperation with UNEP/DTIE's Tourism Programme. Target areas of the Environmental Code of Conduct include energy conservation, water conservation, adequate waste water treatment and elimination of leaks, preservation of local areas of high biodiversity and cultural/historical value, reduction of noise and atmospheric pollution, reduction of environmental impacts of new projects and construction, reuse, reduction and recycling of residues and materials, control of substances that have adverse effects and are harmful to the environment, and elimination of waste incineration, burning of pastures and deforestation.

Implementation includes application of best management practices and various social and environmental actions mobilizing hotel employees, their families and host communities. The Code of Conduct is monitored annually by independent professionals at each member hotel, in order to evaluate impacts and progress and setting targets for improvement.

Financial incentives and awards of various kinds are provided to employees from savings derived from environmental actions in hotels and projects in local communities. Pioneering and unique initiatives such as that of Roteiros de Charme Hotel Association indicate that despite challenges to bringing about tourism that is sustainable in Brazil, the local hospitality industry can be compatible with the social and environmental principles of sustainability. The Association's programme has sought to build human capacities and to contribute to more sustainable and viable forms of social development.

UNEP/DTIE has recognized Roteiros de Charme as an important ally in various activities. Roteiros de Charme is also a Board member and Vice-President of the Brazilian Council for Sustainable Tourism, a multi-stakeholder initiative supported by the Brazilian government that aims at launching a certification system for sustainable tourism. UNEP/DTIE and Roteiros de Charme participate in and contribute to this initiative, particularly with respect to the definition and adoption of standards and criteria compatible with the Brazilian context.

On 29 January 2003, at UNEP DTIE in Paris, a new step was taken as the partners signed a two-year Memorandum of Cooperation, a benchmark regarding links between UNEP and the private sector for the development of sustainable tourism, particularly in Latin America. The agreement will consolidate and further strengthen on-going collaboration such as training and awareness raising programmes, information and reference materials, and monitoring standards and criteria for sustainability. Associated with an international effort with the Sorbonne University's UNESCO Chair for Tourism, Culture and Development, the Memorandum will lead to publications and training programmes in Portuguese on environmentally sound technologies and management systems for small and medium-sized tourism businesses in Brazil.

For more information, contact: Monica Borobia, Environmental Officer, Roteiros de Charme – Associacao de Hoteis, Av. Vieira Souto, 460/501, Caesar Park Hotel Ipanema, 22420-000 Rio de Janeiro, Brazil, Tel: +5521 25 25 25 25 # 501, +5521 22 87 15 92, Fax: +55 21 2522 1102, Email: hotel@roteirosdecharme.com.br, Internet: www.roteirosdecharme.com.br. ◆

Tour operators launch new performance indicators

Key social and environmental performance indicators for tour operators were launched in London on 13 November 2002, during Environmental Awareness Day at the World Travel Market.

A new report by the Tour Operators Initiative (TOI), a global network of tour operators supported by UNEP in liaison with UNESCO and the World Tourism Organization (WTO), is helping promote environment-friendly and socially responsible tourism. The indicators, in the form of recommendations, represent one of the first "sectoral supplements" to the already established Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (see below).

"The Tour Operators' Sector Supplement is a testament to the dedication of a diverse range of stakeholders," said Jan Jackson, Chair of the TOI and Environmental Manager at British Airways Holidays. Over 30 organizations, from civil society groups to trade unions, local tourism boards, suppliers and tour operating companies, collaborated in the preparation of the supplement. "This diversity enhances the credibility of the document," added Jackson. "It will lead to continued mutual learning in the tour operator sector as we begin to prepare sustainability reports."

By reporting on actions they have taken on the ground, the tour operators hope to help prevent the negative effects of tourism on local peoples. They also hope to encourage responsible use of natural resources, and to prevent pollution and waste at travel destinations around the world.

"Virtually all dimensions of the tour operating business have environmental, economic, and social impacts," said Jacqueline Aloisi de Larderel, UNEP Assistant Executive Director. "What gets measured – and reported – gets managed... Through improved disclosure, tour operators can help transform an industry that is often the largest employer in some countries into a more sustainable enterprise."

The performance indicators are divided into categories reflecting the life cycle of the "holiday product"- from the planning stage to development and delivery. They ask tour operators to describe joint actions taken with suppliers to support improvements in their environmental and social performance, as well as ways in which they increase consumer awareness of sustainable holiday-making, recruitment of local residents for management positions, and positive cooperation with concerned organizations and groups at the destination. Through a feedback process, this pilot supplement will provide the GRI with valuable experience on how to incorporate sector-specific issues into its broader reporting framework.

The GRI Guidelines contain core indicators for sustainability reporting by all companies. They are designed to enable companies and other organizations to prepare comparable reports across the "triple bottom line" of their economic, environmental, and social performance. Recognizing that one size does not fit all, sector supplements are designed for use in combination with the Guidelines, to go beyond general sustainability issues and cover those issues specific to a particular sector. Both the Guidelines and the tour operators' supplement are being developed and field-tested within GRI's multi-stakeholder process, which includes business, finance, accountancy, non-governmental organizations, organized labour, and others.

The GRI was established in 1997 with the mission of designing globally applicable guidelines for preparing reports on the environmental, social and economic impact of corporate activities. More than 150 pioneering companies from around the world have already undertaken sustainability reporting using the GRI Guidelines. The GRI is an official UNEP collaborating center.

The tour operators' sector reporting supplement and a list of project participants are available on-line at *www.toinitiative.org*. The 2002 version of the GRI Guidelines is available at *www.globalreporting.org*. Information about UNEP's work on tourism can be found at *www.uneptie.org/pc/tourism*.

For additional information, contact: Mark Brownlie (GRI), Tel: +1 403 288 2131, Email: brownlie@globalreporting.org, or the Global Reporting Initiative in Amsterdam, Tel: +31 20 531 00 00, Email: info@globalreporting.org, Internet: www.globalreporting.org. At UNEP, contact: Robert Bisset (see above) or Giulia Carbone, UNEP TOI Secretariat, Tel: +33 1 4437 1468, Email: giulia.carbone@unep.fr. ◆

Indian solar power initiative

A major new US$ 7.6 million initiative has been launched between UNEP and two of India's largest banking groups to help 18,000 southern Indian households finance clean and reliable electricity from solar power.

In the southern Indian state of Karnataka, Syndicate Bank and Canara Bank have begun offering new loans in which UNEP is "buying down" the financing cost of photovolatic solar home systems. In effect, Indian households will be able to purchase systems at an interest rate of approximately 5% compared with normal consumer lending rates of 11-12%. The UNEP programme is being made possible with support from the United Nations Foundation (UNF) and the Shell Foundation.

"This initiative helps to meet both environmental and development objectives by overcoming a major barrier to increasing the use of renewable energy – access to finance," said UNEP Executive Director Klaus Toepfer.

Many Indian households still rely on inefficient and polluting energy sources such as kerosene, which produces negative health, environmental and social impacts. In Karnataka, even where grid electricity is available, problems of capacity shortages and inconsistent quality plague the power supply. This has led households to look to alternative power supply systems such as solar or diesel generators. Despite high initial costs, solar home systems emerge as an attractive option in the context of costly or unreliable alternatives and escalating grid power tariffs. A growing number of households are therefore turning to solar as a matter of necessity and convenience.

However, financing the high initial cost is a major barrier and one where southern India's well-developed banking sector can play a leading role. Canara Bank and Syndicate Bank are credited with introducing many of the most innovative rural financial products in India. Each also finances group lending through linkages with Self Help Groups, and hence can advance loans to the poorest. The UNEP partnership will allow both banks to offer new loan products for the growing renewable energy sector through an extensive and established network of rural branches in the states of Karnataka and Kerala.

By combining two banks and a number of UNEP-qualified solar home system vendors, UNF President Tim Wirth says the programme is a "market-driven approach designed to stimulate competition among vendors and ensure quality products, competitive pricing and reliable after-sales service."

Shell Foundation's President Kurt Hoffman says clean and reliable forms of energy "can improve access to education and communications, protect health and environmental values and promote economic growth – all necessary to alleviate poverty." Hoffman added that such efforts will help to create a future of economic, social and environmental prosperity, which is the core of sustainable development.

Background information and a colour photo of a solar home system installation are available on request, or can be downloaded from *www.uneptie.org/energy/Indian-Solar-Finance*. The UNEP Energy Unit Web site is *www.uneptie.org/energy*. The UNEP Collaborating Centre on Energy and Environment site is *www.uccee.org*.

For more information, contact: Robert Bisset (see above) or Tim Higham, Regional Information Officer, UNEP, Bangkok, Tel: +662 288 2127, Email: higham@un.org. ◆

Photo courtesy of BP Solar

Installing a solar home system

IETC launches ESTIS

UNEP's International Environmental Technology Centre has announced the launch of its Environmentally Sound Technology Information System (ESTIS), a highly innovative Information and Knowledge Management System (IT/KMS) designed to improve the transfer of environmentally sound technologies. ESTIS is a multi-language information system (IS) management tool to assist the transfer of environmentally sound technologies (EST). It encompasses three integrated components, providing a decentralized IT network for improved access and local control of EST related information transfer.

ESTIS helps users build an IS to publish EST information on the Internet, free of charge. It also enables them to "grow" their information collection and dissemination capability in a structured, user-friendly manner.

ESTIS offers a fully customized, database driven website that will fit data structure and information needs, corporate image needs, profile and "marketability".

For more information, contact: UNEP IETC, Tel: +81 6 6915 4581, Fax: +81 6 6915 0304, Email: ietc@unep.or, Internet: unep.or.jp/ietc. ◆

UNEP/SETAC Life Cycle Initiative experts support capacity building

Eighty experts from industry, business associations, governments, international and non-governmental organizations and academia have indicated their support for a UNEP proposal to open regional chapters of an initiative focusing on capacity building. Regional sub-programmes for Asia/Pacific, Latin America and Africa are considered necessary in order to globalize the use of life-cycle thinking.

The experts met in December 2002 to discuss the UNEP/SETAC Life Cycle Initiative work programme for the next few years. The initiative will constitute a global forum to exchange information and carry out specific tasks in the fields of methods and data for life-cycle analysis and to advance the concept of life-cycle management. Widely accepted life cycle data and methods were seen as the basis for promoting an extended use of life-cycle approaches. Life-cycle management was seen as the crucial element of the initiative to make the link between the data and methods provider and decision makers. Industry and governments were

especially interested in this part of the initiative due to its enormous potential for applications of life-cycle thinking in the future.

The experts stated that significant opportunities could be identified by industry and governments to protect the environment and to alleviate poverty by adopting life-cycle thinking. "Based on the 'cradle to grave' approach the Life Cycle Initiative will help address environmental problems in a socio-economic perspective", said Surya Chandak, head of UNEP's programme on cleaner production. "With its focus on sharing of information and closing the knowledge gap between developed and developing countries, the initiative will critically help translate life-cycle thinking into practice and support the function-based approach proposed by UNEP to change unsustainable patterns of production and consumption."

In line with the call to change unsustainable patterns of consumption and production by the World Summit on Sustainable Development in Johannesburg, UNEP collaborates with the Society of Environmental Toxicology and Chemistry (SETAC) in the Life Cycle Initiative. This initiative will help governments, businesses and consumers to adopt more environment-friendly policies, practices and life styles (see *Industry and Environment*, Vol. 25, No. 3-4, pp. 38-40). UNEP/ SETAC partners in the Life Cycle Initiative are AIST (National Institute of Advanced Industrial Science and Technology), Japan, the Alliance for Beverage Cartons and the Environment (ACE), the International Council on Mining and Metals (ICMM), the government of the Netherlands, the government of Switzerland and the government of Québec.

For more information about UNEP/SETAC Life-Cycle Initiative, contact UNEP DTIE, Email: sc@unep.fr, Internet: pc/sustain/lca/lca.htm or SETAC, Internet: www.setac.org/lca.

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Books & Reports

Unfolding Stakeholder Thinking: Theory, Responsibility and Engagement

The first of two volumes on "stakeholder thinking" looks at the evolution of this concept since it was popularized in 1984 by R. Edward Freeman (who wrote the foreword). The editors, an international team of academics, have put together a collection of essays highlighting current stakeholder thinking and stakeholder engagement processes. Core topics include the tension between stakeholder thinking and traditional economic theory, and the development (illustrated by case studies) of mutual engagement and responsibilities. The concluding chapters focus on the influence of activists. The second volume of *Unfolding Stakeholder Thinking* will be concerned with managing stakeholder relationships.

J. Andriof, et al., eds. (2002). Greenleaf Publishing Ltd., Aizlewood Business Centre, Aislewood's Mill, Nursery Street, Sheffield S3 8GG, UK, Tel: +44 114 282 4375, Fax: +44 114 282 3476, E-mail: info@greenleaf-publishing.com, Internet: www.greenleaf-publishing.com. Hbk., 320p. ISBN 1-874719-52-7.

A Plague of Rats and Rubbervines: The Growing Threat of Species Invasions

In a project sponsored by the Scientific Committee on Problems of the Environment and carried out in cooperation with the Global Invasive Species Programme, the author conducted a worldwide study of the impacts of exotic organisms running out of control in new settings. Such "invaders" (often introduced by seemingly harmless human actions) not only transform landscapes around the world (seldom for the better), but also often disrupt human activities and well-being while threatening habitats and biodiversity. The author presents potential solutions, profiles many individuals who are working to protect native species, and suggests how consumers, gardeners, pet owners, business people and others can help.

Y. Baskin (2002). SCOPE. Available from Island Press/Shearwater Books, Dept. 2AU, PO Box 77, Covelo, CA 95428, USA. Fax: +1 707 983 6414, E-mail: orders@islandpress.org, Internet: www.islandpress.org. Hbk., 377p. ISBN 1-55963-876-1.

@ UNEP Trust Us: The 2002 Global Reporters Survey of Corporate Sustainability Reporting

Fifty major corporate sustainability reports from around the world are assessed in this survey, which is the most recent publication from UNEP's Engaging Stakeholders programme and the consultancy SustainAbility. Best practice and emerging issues are highlighted. *Trust Us* concludes that corporate social responsibility and sustainability reporting offer real opportunities for companies to rebuild the public's eroding faith in capitalism and in multinational corporations. Reports from seven multinationals scored over 50% by SustainAbility's standards. Overall quality was virtually the same as in 2000. The size of the reports had increased by 45%. While the Global Reporting Initiative (GRI) guidelines have had a major impact on reports, they may also have contributed to this growing bulk. Companies appeared to be expanding and deepening their treatment of the social and economic dimensions of sustainability, but de-emphasizing the environmental dimension.

(2002). SustainAbility, 11-13 Knightsbridge, London SW1X 7LY, UK, Tel: +44 20 7245 1116, Fax: +44 20 7245 1117, E-mail: robinson@sustainability.com, Internet: www.sustainability.com/trust-us. Pbk., 64p. ISBN 1-903168-06-6.

Sustainable Development in a Dynamic World: Transforming Institutions, Growth, and Quality of Life

The 2003 World Development Report from the International Bank for Reconstruction and Development (part of the World Bank Group) addresses the challenge of how to ensure productive work and good quality of life for the over 2.5 billion people in the world who live on less than US$ 2 a day, and at the same time meet environmental and social needs. This is the 25th such World Bank report. If governments act now to avert environmental degradation and social unrest, it projects that the next half century could see a quadrupling of the global economy as well as significant poverty reduction – despite population growth. However, new national, regional and global alliances will be needed.

(2003). World Bank. Available from Oxford University Press, Great Clarendon Street, Oxford OX2 6DP, UK, Tel: +44 1865 556767, Internet: www.oup.co.uk. Pbk., 250p. ISBN 0-8213-5150-8.

Yearbook of International Environmental Law: Volume 12, 2001

In addition to the Year in Review and a Literature Review, the latest volume of this internationally recognized yearbook includes contributions by Robin Churchill on the use of treaties to facilitate civil liability litigation, Tullio Scovazzi on government responsibility, Vierga Vargas on the Basel Convention liability protocol, and Halina Ward on prospects for a corporate accountability convention.

G. Ulfstein and J. Werksman, eds. (2003). Oxford University Press (see above). Hbk., 905p. ISBN 0-19-924822-2.

Making Waves: Integrating Coastal Conservation and Development

Arguing that the "dynamism" of coasts must be conserved, the authors present a package of information, tools and techniques aimed at promoting sustainable coastal resource management. Aimed at those engaged in natural resource and coastal zone management, as well as researchers and students, *Making Waves* identifies many of the trade-offs and dilemmas involved in integrating conservation and development. (One chapter is devoted to "trade-off analysis".) It also sets out methods for fostering sustainable coastal management policy and decision making, including ways to assess the social implications of coastal resource use.

K. Brown, E.L. Tompkins, W.N. Adger (2002). Earthscan Publications Ltd., 120 Pentonville Road, London, N1 9JN, UK, Tel: +44 20 7278 0433, Fax: +44 20 7278 1142, E-mail: earthinfo@earthscan.co.uk, Internet: www.earthscan.co.uk. Pbk., 164p. ISBN 1-85383-912-4.

UNEP Pachamama: Teacher's Guide

This guide is designed for use with *Pachamama: Our Earth – Our Future*, the youth-oriented publication based on UNEP's second *Global Environment Outlook*. It provides seven teaching modules covering *Pachamama's* major environmental themes (atmosphere, freshwater, oceans, forests, biodiversity, urbanization, land use, environmental policies, emerging issues, and youth action related to the environment). Activities are aimed at upper primary to lower secondary school students. The teacher's guide also exists in a CD-ROM version.

(2002). Available from EarthPrint (see above). Pbk., 84p. ISBN 92-807-2147-x. CD-ROM, ISBN 92-807-2148-8.

UNEP GEO-3 Data Compendium

This is the companion volume to UNEP's *Global Environment Outlook 3*, reviewed in *Industry and Environment*, Vol. 25, No. 2 (2002). It presents the major national, regional and global statistical data sets used to prepare the *GEO-3* report and many of its graphics. Developed by the Division of Early Warning and Assessment (DEWA), the data in the compendium were taken from the online GEO Data Portal maintained by GRID-Geneva. The compendium is, in effect, a snapshot of the most important data available through the portal at the time GEO-3 was finalized. It includes a CD-ROM containing PDF files of both *GEO-3* and the compendium.

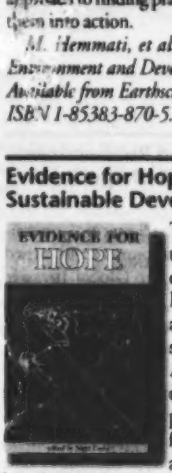
(2002). UNEP/DEWA. Available from EarthPrint Ltd., PO Box 119, Stevenage, SG14TP, UK, Tel:+44 1438 748 111, Fax: +44 1438 748 844, E-mail: orders@earthprint.com, Internet: www.earthprint.com. Pbk., 269p. ISBN 92-807-2223-9.

Multi-stakeholder Processes for Governance and Sustainability: Beyond Deadlock and Conflict

This practical guide to broad-based, consensual decision making explains how to organize multi-stakeholder forums to resolve complex sustainable development issues. Arguing that conventional politics is increasingly unable to adapt to participatory decision making, it takes an eclectic approach, outlining a more equitable and effective approach to finding practical solutions and putting them into action.

M. Hemmati, et al. (2002). United Nations Environment and Development – UK Committee. Available from Earthscan (see above). Pbk., 312p. ISBN 1-85383-870-5.

Evidence for Hope: The Search for Sustainable Development



The editor has been Executive Director of the London-based International Institute for Environment and Development (IIED) since 1999. In *Evidence for Hope* a distinguished group of scholars and activists present IIED's history from its founding in 1971 as the International Institute for Environmental Affairs to its 30th anniversary conference on "Equity for a Small Planet". This is also a history of ideas about environment and development. For example, the Stockholm (1972), Rio (1992) and Johannesburg (2002) summits took place during this period. *Evidence for Hope* includes case studies from selected IIED projects and an assessment of challenges for the 21st century.

N. Cross, ed. (2003). Available from Earthscan (see above). Pbk., 238p. ISBN 1-85383-855-1.

Towards Sustainable Household Consumption? Trends and Policies in OECD Countries

This comprehensive analysis of household consumption patterns in the developed world focuses on five key areas: food, tourism-related travel, energy, water, and waste generation. Without strong policies to encourage shifts in consumption patterns, the environmental impacts of household activities will continue the worsening trend of the past three decades and are likely to intensify. *Towards Sustainable Household Consumption?* sets out a policy framework and outlines policy objectives for promoting sustainable consumption. The effectiveness of various regulatory, economic and social instruments in influencing consumption patterns is analyzed. Combinations of instruments that could move household consumption towards sustainability are also identified.

(2002). OECD. Available from OECD Publications, 2 rue André-Pascal, 75775 Paris Cedex 16, France, Tel: +33 1 45 24 82 00, Internet: www.oecd.org/bookshop. Pbk., 161p. ISBN 92-64-19737-0.

UNEP Sustainable Consumption and Cleaner Production: Global Status 2002

This publication contains the executive summaries of more detailed global status reports on sustainable consumption and cleaner production found in *Industry and Environment*, Vol. 25, No. 3-4, (2002) pp. 6-7. Those reports are available on line or in a CD-ROM version.

(2002). UNEP DTIE. Available from EarthPrint (see above) or see www.uneptie.org/pc/cp/library/catalogue/regional reports.htm. Pbk., 23p. ISBN 92-807-2073-2.

UNEP Profiting from Cleaner Production

Changing consumption and production patterns is a key objective on the way to sustainable development. It requires integrating sustainable practices throughout the value chain, starting with cleaner production (also known as eco-efficiency, pollution prevention, green productivity, etc.). However, companies that need financing for such preventive options may have difficulty coming up with successful investment proposals. To counter this potential problem, in 1999 UNEP DTIE (supported by a trust fund from Norway) launched a project on "Strategies and Mechanisms for Promoting Cleaner Production Industries in Developing Countries". Following four years of design, testing, adaptation and implementation in five countries on three continents, a kit called *Profiting from Cleaner Production*, containing training courses, checklists and other tools, has been published for use by decision makers and practitioners in businesses, financial institutions and government. The publications that make up the kit are:

Towards Efficient Resource Management, a booklet whose purpose is to raise awareness and attract interest. *8p. ISBN 92-807-2199-2.*

Checklists for Action, a guide for decision makers and practitioners in industry and banking. *23p. ISBN 92-807-2202-6.*

Short Presentations for Senior Executives, which illustrates three slide shows for use by and in companies, financial institutions and government agencies. Included are a CD-ROM of slides for all three presentations. *31p. ISBN 92-807-2200-X.*

Resource Kit for Training: Trainers' Guide, which shows how to present the following courses: "Introduction to Cleaner Production Concept and Practice" (one-day awareness course), "Introduction to Capital Budgeting and Funding of Capital Projects" (one-day awareness course), "Profiting from Cleaner Production" (two-day skill development course), and "The Cleaner Production Investment Process" (two-day skill development course). Slides, exercises and handouts for the courses are available on a CD-ROM, which also includes the checklists and executive presentations. *14p. ISBN 92-807-2201-8.*

The entire package is available on-line in English and Russian. Translations into Arabic, Chinese, French, Spanish and Vietnamese are planned or in progress.

(2002). UNEP DTIE. Available at www.financingcp.org/training/training.html or from Financing Cleaner Production, UNEP DTIE, 39-43 quai André-Citroën, 75739 Paris Cedex 15, France, Tel: +33 1 44 37 14 50, Fax: +33 1 44 37 14 74, E-mail: elena.ciccozzi@unep.fr.

Integrating the Rio Conventions in Development Co-operation: The DAC Guidelines

The OECD's Development Assistance Committee (DAC) issued these guidelines to help decision makers and donor organizations clarify the links between global environmental issues and poverty reduction efforts. Coordinated by the DAC Working Party on Development Cooperation and Environment, they concentrate on the climate change, biodiversity and desertification conventions. However, much of this publication is also applicable to other environmental issues. The DAC Guidelines state that addressing global environmental challenges is key to development and poverty reduction, and that responses to global environmental threats require measures in a number of sectors.

(2002) OECD-DAC. Available from OECD Publications (see above). Pbk., 102p. ISBN 92-64-19813-X.

Human Rights and the Environment: Conflicts and Norms in a Globalizing World

If human rights and the environment have long shared some common ground, the spread of economic globalization has helped bring greater attention to their interface. The essays and case studies in *Human Rights and the Environment* specifically address what the editor calls "collisions" of global expansion and local communities, and the resulting need for ethical standards and norms to deal with such conflicts (especially in developing countries). They focus on three areas – energy and mineral development, the development process as such, and land rights. Three basic lessons can be drawn: such conflicts stem from political exclusion, local communities have a right to shape the development process, and there is a need for a combination of legal and institutional solutions.

L. Zarsky, ed. (2002). Nautilus Institute. Available from Earthscan (see above). Pbk., 288p. ISBN 1-85383-815-2.

Cleaning Up: Experience and Knowledge to Finance Investments in Cleaner Production

This booklet summarizes the four-year "Strategies and Mechanisms for Promoting Cleaner Production Industries in Developing Countries" project mentioned in the review above (*Profiting from Cleaner Production*). The project was funded by Norway. Aimed at cleaner production practitioners, *Cleaning Up* presents information on the demonstration projects carried out in Guatemala, Nicaragua, Tanzania, Vietnam and Zimbabwe.

(2003). UNEP DTIE. Availability the same as for Profiting from Cleaner Production, above. Pbk., 12p.

Capacity Building for Cleaner Production Centres

The UNEP Cleaner Production Unit, with funding from the German organization InWEnt, has put together this training package to provide established cleaner production centres with up-to-date information about new and upcoming issues. There are three modules in the package: "Sustainable Consumption and Production: Making the Connection", "The Application of Environmental Technology Assessment" and "The Use of Cleaner Production to Facilitate the Implementation of Multilateral Environmental Agreements". The entire training package can be downloaded from the UNEP DTIE Cleaner Production site.

(2002). UNEP DTIE. Available at www.uneptie.org/pc/cp/library/training/cdgpack/start.htm.

Capacity Building for Sustainable Development: An Overview of UNEP Environmental Capacity Development Activities

Intended as a resource for UNEP partners and potential partners, this publication gives examples of areas in which UNEP is working on capacity building for good environmental management. Its purpose is to inform governments, institutions and citizens in developing countries (and countries with economies in transition) about the opportunities UNEP provides with respect to capacity development, as well as to encourage donors and others to help UNEP meet needs in this area.

(2002). UNEP. Available from EarthPrint (see above). Pbk., 164p. ISBN 92-807-2266-2.

The Earthscan Reader on International Trade and Sustainable Development

Drawing on the growing body of literature from academics, activists, NGOs and governments concerning the impacts of international trade on employment, communities and the environment, this Earthscan reader attempts to consolidate the lessons learned thus far. It covers a wide range, from economics and law to political science and civil society. Contributions explore the effect of World Trade Organization rules, regional trade agreements, biosafety regulations, the intellectual property issue and other factors. Part I concentrates on economic perspectives, and Part II on legal ones.

K.P. Gallagher and J. Werksman, eds. (2002). Available from Earthscan (see above). Pbk., 405p. ISBN 85383-887-X.

Implementing Sustainable Development: Integrated Assessment and Participatory Decision-Making Processes

To help provide practical tools for decision makers who want to formulate policies supporting sustainable development, the editors explore analytical and empirical aspects of how decisions are made. The focus is on assessment and evaluation. Methodological issues are discussed in Part I. Part II looks at ways to involve stakeholders, and Part III is concerned with the modelling aspect of integrated assessment. The value of an interdisciplinary approach in improving perceptions of sustainable development policies is stressed. Contributors also emphasize that transparency in modelling and assessment should increase meaningful participation by all those involved in decision making.

H. Abaza and A. Baranzini, eds. (2002). UNEP. Available from Edward Elgar Publishing Ltd., Glensanda House, Montpellier Parade, Cheltenham, Glos GL50 1UA, UK, Tel: +44 1242 226934, Fax: +44 1242 262111, E-mail: info@e-elgar.co.uk, Internet: www.e-elgar.com. Hbk., 303p. ISBN 1-84064-913-5.

Marketing for Sustainability: Towards Transactional Policy-Making

Adapted and updated from a 1998 Dutch publication (with a new prologue by UNEP Executive Director Klaus Toepfer), *Marketing for Sustainability* looks at ways governments, NGOs and companies communicate the sustainable development challenge. The articles – on such varied topics as TV advertising, brand identity, road design, nuclear energy, and what interests children – constitute an overview of current marketing and communications strategies aimed at influencing consumption patterns. Academic and market researchers are among the authors. *Marketing for Sustainability* is divided into sections on policy development, mass media campaigns, information processing, behavioural change, and social developments. An innovative outline at the end

categorizes the articles according to issues covered, with cross-references to other chapters.

G. Bartels and Wil Nelissen, eds. (2002). IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands, Fax: +31 20 620 3419, E-mail: order@iospress.nl, Internet: www.iospress.nl. Hbk., 507p. ISBN 1-58603-204-6.

Networking Counts: Montreal Protocol Experiences in Making Multilateral Environmental Agreements Work

The system of regional networks of ozone officers described in this UNEP publication has been fundamental to one of the international community's success stories – worldwide activities to protect the ozone layer. Produced in cooperation with the Swedish International Development Cooperation Agency (Sida), *Networking Counts* shows how networking through UNEP's five regional offices has strengthened the capacity of National Ozone Units in over 114 developing countries and helped improve compliance with the Montreal Protocol. It also explains how this concept could be applied to other environmental treaties.

(2002). Available from UNEP DTIE Energy and OzonAction, 39-43 quai André-Citroën, 75739 Paris Cedex 15, France, Tel: +33 1 44 37 14 59, Fax: +33 1 44 37 14 74, E-mail: rjendra.shende @unep.fr, Internet: www.uneptie.org/ozonaction. Pbk., 23p. ISBN 92-807-2245-X.

Dictionary of Environmental Economics

Just reprinted, this dictionary is billed as the most comprehensive in its field. Most entries are referenced, there are many cross-references, and a list of common acronyms is provided. There are over 1000 entries, along with a bibliography. The entries include familiar concepts like "acid rain" and "water quality standards", as well as more esoteric ones ("accommodating technocentrism", "zonal travel cost method").

A. Markandya, et al. (2001). Available from Earthscan (see above). Pbk., 196p. ISBN 1-85383-542-0.

An Emerging Market for the Environment: A Guide to Emissions Trading

Drawing on recent work by the United Nations Conference on Trade and Development (UNCTAD), this guide summarizes, in non-technical language, the central issues related to emissions trading: whether and how it can reduce the cost of environmental protection, the main challenges involved in designing emissions trading programmes, and what has worked (or not worked) in practice. *An Emerging Market for the Environment* is a joint project of UNEP DTIE, the UNEP Collaborating Centre on Energy and Environment (UCCEE) and UNCTAD's Earth Council Carbon Marketing Programme.

(2002). UNEP, UCCEE, UNCTAD. Available from EarthPrint (see above). Pbk., 41p. ISBN 87-5503-150-1.

Open for Business: Entrepreneurs, Clean Energy and Sustainable Development

Open for Business presents an overview of the Rural Energy Enterprise Development project, or REED, a new approach designed to deliver clean energy services in developing countries. As experience with many types of clean energy technology has increased, technical progress has dramatically lowered the costs of energy from renewable sources such as biomass and wind energy. At the same time, governments have shifted their focus to public-private partnerships and private sector investment in clean energy, creating a major opportunity for new enterprises. Hence this initiative by UNEP and the United Nations Foundation (UNF) to support both public and private enterprises using clean energy technologies to provide unserved communities with sustainable energy services.

(2003). UNEP, UNF. Available from EarthPrint (see above). Pbk., 28p. ISBN 92-807-2163-1.

Energy for Sustainable Development: A Policy Agenda

This report from the United Nations Development Programme (UNDP) takes as its starting point the argument that the Millennium Development Goals, particularly that of halving world poverty by 2015, cannot be met without swift progress in supplying the needs of the 2 billion people who do not have access to modern energy services. In a series of essays, experts from around the world discuss the role of energy in sustainable development, ways to make markets work better, elements of sustainable energy policy, rural development issues, energy innovation and capacity development. The report was produced with the International Institute for Industrial Environmental Economics of Lund University (Sweden) and the International Energy Initiative.

T.B. Johansson and J. Goldemberg, eds. (2002). UNDP, 304 East 45th Street, 9th floor, New York, NY 10017, USA, Fax: +1 212 906 5148, Internet: www.undp.org. Pbk., 219p. ISBN 92-1-126145-7.

Financing Sustainable Energy Directory: A Listing of Lenders and Investors

A joint publication by UNEP DTIE's Finance Initiatives and Energy units and the Basel Agency for Sustainable Energy, this directory is designed to help investors, project developers and entrepreneurs looking for capital (as well as investors looking for financing vehicles) in the rapidly growing renewable energy sector. It constitutes an inventory of lenders and investors that provide finance for energy efficiency projects and projects based on renewable sources. This publication is the first step in a project intended to culminate in a database from which future directories will be compiled.

(2002). UNEP DTIE. Available from EarthPrint (see above) and at http://unepfi.net/fied, E-mail: fied@unep.ch. Pbk., 125p. ISBN 92-807-2237-9.

Tourism and Local Agenda 21: The Role of Local Authorities in Sustainable Tourism

Using five case studies from Denmark, the French Caribbean, Spain and the UK, this study assesses how well local authorities' Agenda 21 programmes take tourism into account. As local government deals with the impact of tourism development, the local Agenda 21 planning framework can be a very useful tool for defining strategic goals that involve all stakeholders and for using tourism effectively to achieve a community's main objectives. The five communities studied have varying degrees of hands-on experience with tourism and with the Local Agenda 21 approach.

(2003). UNEP. Available from EarthPrint (see above). Pbk., 60p. ISBN 92-807-2267-0.

Agenda 21 for Sustainable Construction in Developing Countries

Originally developed as a discussion paper for the Johannesburg summit, this book is a follow-up to the document *Agenda 21 for Sustainable Construction* published in 1999 by the International Council for Research and Innovation in Building and Construction (CIB). Pointing to significant differences in the challenges posed by sustainable construction in developed vs. developing countries, UNEP's International Environmental Technology Centre (IETC) and CIB commissioned this separate Agenda 21 from CSIR Building and Technology of South Africa. It proposes a research and development agenda and strategy intended to ensure that the construction sector's contribution to economic development in developing countries is consistent with sustainability principles.

(2002). UNEP IETC and CIB. Available at www.csir.co.za. Pbk., 82p. ISBN 0-7988-5540-1.

Indicators of Sustainability for the Mineral Extraction Industries

In addition to discussing sustainability indicators for use by mining and mineral companies, this publication examines related sustainability issues of major concern to companies and affected communities. Following contributions on the concepts involved, the editors present mining case studies and country case studies. Produced in Brazil, the book is a joint production of the Global Environment Facility, UNEP and UNIDO, in collaboration with Ciencia y tecnología para el desarrollo (CYTED-XIII), the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), the International Materials Assessment and Application Center (IMAAC), the Centro de Tecnologia Mineral (CETEM) and Vale do Rio Doce Company. Available at no charge in Spanish and English, it can also be downloaded.

R.C. Villas Bôas and C. Beinhoff, eds. (2002). GEF/UNDP/UNIDO. Available from CETEM, Avenida Ipê, 900 – Ilha da Cidade Universitária, 21941-590 Rio de Janeiro, Brazil, Tel: +55 21 3865 7219, Fax: +55 21 2260 2837, E-mail: fengel@cetem.gov.br, Internet: http://w3.cetem.gov.br/imaac/publicat.html. Pbk., 524p. ISBN 85-7227-164-3.

Polymers, the Environment and Sustainable Development

Strikingly designed and conceived, *Polymers, the Environment and Sustainable Development* is concerned with identifying more sustainable ways to use and manage synthetic polymers – the ubiquitous plastics, fibres and other products derived from fossil fuels. There is a chapter on life-cycle thinking, while other chapters cover topics such as integrated strategy for polymers, sources of polymers in waste streams, management of polymer waste, and recycling.

A. Azapagic, A. Emsley, I. Hamerton (2003). Available from John Wiley & Sons Ltd., Baffins Lane, Chichester, West Sussex PO19 1UD, UK, Tel: +44 1243 779777, E-mail: cs-books@wiley.co.uk, Internet: www.wileyeurope.com.

Global Mercury Assessment

It was this document whose findings led 130 nations at the UNEP Governing Council (see UNEP Focus, page 44) to approve a global action plan for mercury pollution. Among other findings, it suggests that mercury poisoning of the planet could be significantly reduced by curbing pollution from power stations, with a focus on developing countries, especially in Asia. Other key sources of mercury are waste incineration and small-scale mining. The international team of experts assembled by UNEP found that temperature can influence releases of mercury from contaminated sediments and soils to water bodies, where it may be converted to methylmercury, one of the most poisonous forms. Several of the experts' recommendations were considered by delegates to the Governing Council.

(2002). UNEP Chemicals, 11-13, Chemin des Anémones, CH-1219 Châtelaine Geneva 10, Switzerland, Tel: +41 22 917 1234, Fax: +41 22 797 3460, E-mail: chemicals@unep.ch, Internet: www.chem.unep.ch. Pbk., 258p.

Ridding the World of POPs: A Guide to the Stockholm Convention on Persistent Organic Pollutants

This free booklet presents persistent organic pollutants (POPs) and the POPs Convention in easily understandable terms, with amusing illustrations. It explains what these pollutants are and what the 2001 Stockholm Convention aims to achieve.

(2002). UNEP Chemicals, 11-13, Chemin des Anémones, CH-1219 Châtelaine Geneva 10, Switzerland, Tel: +41 22 917 8111, Fax: +41 22 797 3460, E-mail: sc@chemicals.unep.ch, Internet: www.pops.int. Pbk., 18p.

Atlas of International Freshwater Agreements

While the media often focus on conflicts over water, this atlas shows that treaties (not "water wars") are the norm. The text is a systematic, thorough compilation of the available historical record on treaties and agreements regarding the water resources of rivers and lakes that cross international borders. The authors point to such agreements as compelling testimony that water is an agent of cooperation rather than of conflict. Thematic maps help to show why this should be so, giving perspective to the legal records that make up most of the contents of the atlas.

(2002). UNEP. Available from EarthPrint (see above). Pbk., 183p. ISBN 92-807-2232-8.

Vital Water Graphics: An Overview of the State of the World's Fresh and Marine Waters

Conceived as an easily accessible resource on the state of waters worldwide, this publication uses a set of graphics, maps and other illustrations to illustrate the causes and effects of water related phenomena and the trends and threats that affect water sources. The book and accompanying slides highlight areas of major concern. Included are scenarios of the future use and management of fresh, coastal and marine waters. The goal is to help water users and water sector professionals make informed decisions that will lead to protection of water resources for future generations.

(2002). UNEP. Pbk., 43p., with 40 transparencies and CD-ROM (in ring binder). ISBN 92-807-2236-0.

Depleted Uranium in Bosnia and Herzegovina: Post-Conflict Environmental Assessment

This report, the third in UNEP's Balkans post-conflict assessment series, confirms that depleted uranium (DU) from weapons used in Bosnia and Herzegovina in 1994-95 contaminated a source of drinking water supply and is still present in suspended dust particles. (The contamination levels recorded were quite low, however, and the UNEP team did not judge them to pose immediate risk to the environment or human health.) The report includes new findings on how DU behaves in the environment, including the first instance of groundwater contamination. Overall, this report is consistent with the those on Kosovo (2001) and Serbia and Montenegro (2002). The assessment mission was funded by Italy and Switzerland.

(2003). UNEP. Available from EarthPrint (see above), or download in PDF format at www.unep.org. Pbk., 282p.

North America's Environment: A Thirty-Year State of the Environment and Policy Retrospective

This companion volume to *GEO-3* expands on the regional contribution to that report. It examines the state of North America's environment and provides an in-depth description and analysis of priority issues. It also discusses trends in this region.

(2002). UNEP. Available from EarthPrint (see above). Pbk., 204p. ISBN 92-807-234-4.

Afghanistan Post-Conflict Environmental Assessment

Two decades of war have so degraded Afghanistan's environment that it presents a major stumbling block to reconstruction efforts. This UNEP report was produced in cooperation with the Afghanistan Transitional Authority (see UNEP Focus, page 45). It demonstrates how conflict caused environmental management and conservation strategies to be put on hold, resulted in a collapse of local and national governance, destroyed infrastructure, hindered agricultural activity, and drove people into cities that already lacked basic public amenities. This report includes

recommendations on how to improve environmental conditions and policies.

(2003). UNEP. Available from EarthPrint (see above), or download in PDF format at www.unep.org. Pbk., 198p. ISBN 92-1-158617-8.

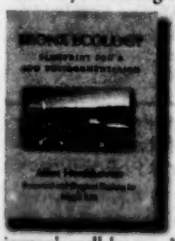
Caucasus Environment Outlook (CEO) 2002

UNEP's GRID-Tbilisi office coordinated this first regional environmental report on Armenia, Azerbaijan, Georgia and Russia. The report describes the state of the region's environment, identifies socio-economic forces related to environmental pressures, and examines regional economic and environmental trends and policy measures since 1972. A key element is an analysis of human vulnerability with respect to environment, conflict, poverty and other factors. This report presents a 30-year environmental outlook based on three development scenarios.

(2002). UNEP/DEWA/GRID, 1, M. Alexidze St. VI fl #603, 380093 Tbilisi, Georgia, Tel: +995 32 335514 or 942808, Fax: +995 32 942808, E-mail: grid@gridtb.org, Internet: www.gridtb.org.

Bronx Ecology: Blueprint for a New Environmentalism

Allen Hershkowitz of the Natural Resources Defense Council in the United States spent eight years on a project to build a recycled paper mill on the site of an abandoned railyard in one of New York City's most neglected neighbourhoods, the South Bronx. The Bronx Community Paper Corporation was intended to be a pilot project for a new industrial economy based on the triple bottom line. The project had presidential support, designs by the architect Maya Lin (who was responsible for Washington's well-known Vietnam Memorial) and good press, but in the end it could not secure adequate financing or (as this book omits to explain) the goodwill of the community. *Bronx Ecology* is the biography of a project that, as Lin puts it in her foreword, may have been too far ahead of its time but is still being studied as "an idea that *should* happen".



A. Hershkowitz (2002). Available from Island Press (see above). Hbk., 281p. ISBN 1-55963-864-8.

OECD Environmental Performance Reviews: Iceland, Italy, Japan, Slovakia, UK

The latest country studies in the OECD's second series of Environmental Performance Reviews (EPRs) include an assessment of countries' responses to the recommendations made by the OECD in the first series. Like the earlier EPRs, the new series presents information on each country's management of environmental media, waste and biodiversity. Each title also covers environmental-economic and environmental-social integration and policy implementation. The Environmental Performance Reviews are published in English and French.

Iceland (2001). Pbk., 148p. ISBN 92-64-18587-9.
Italy (2003). Pbk., 248p. ISBN 92-64-19915-2.
Japan (2002). Pbk., 292p. ISBN 92-64-19744-3.
Slovak Republic (2002). Pbk., 196p. ISBN 92-64-19732-X.
UK (2002). Pbk., 276p. ISBN 92-64-19849-0.
Available from OECD Publications (see above).

Evaluation of Urban Pollution of Surficial and Groundwater Aquifers in Africa

This report is the result of a joint project of the Evaluation and Oversight Unit of UNEP's Division of Early Warning and Assessment (DEWA) and UNESCO's International Hydrological Programme. It discusses the establishment of groundwater pollution monitoring in seven countries, the development of monitoring methodologies, and prospects for the project's long-term sustainability.

(2002). UNEP DEWA, PO Box 30552, Nairobi 00100, Kenya, Tel: +254 2 624028, Fax: +254 2 623943, E-mail: dewa.direcotr@unep.org, Internet: www.unep.org/dewa. Pbk., 52p. ISBN 92-807-22?1-9.

Mangroves of East Africa

Produced in conjunction with UNEP's Global Programme of Action, with funding from Ireland, this report discusses the state of and threats to East African mangroves, the fauna they support, legislation affecting them, and the long-term outlook. Included are detailed country studies from South Africa, Mozambique, Madagascar, Tanzania, Seychelles, Kenya and Somalia.

M. Taylor, C. Ravilious, E.P. Green (2003). UNEP WCMC, 219 Huntingdon Road, Cambridge CB3 0DL, UK, Tel: +44 1223 277314, Fax: +44 1223 277136, E-mail: info@unep-wcmc.org, Internet: www.unep-wcmc.org.

Web Site Highlights

Spotting responsible businesses www.greenpages.org

This Web resource, run by Co-op America (a consumer NGO), is designed to help users identify socially and environmentally responsible businesses. The Green Pages Online directory covers more than 2000 businesses that support sustainable business practices and have been screened for their social and environmental practices. To join, businesses must submit an on-line form, complete an enrolment package, and meet the same criteria for social and environmental responsibility as members of the Co-op America Business Network.

Forum for SRI in Asia www.asria.org

This regional site on sustainable and responsible investment (SRI, which may also stand for socially responsible investment) lists publications, events and activities and posts the latest news about SRI in Asia. One of its main functions is to provide a forum on regional SRI issues. It also includes pages listing SRI jobs in the region, as well as information on selected funds based in Asia and the Pacific Rim.

Annual Review of Corporate Responsibility www.lifeworth.net

This free on-line publication makes available quarterly reviews from an academic publication, the *Journal of Corporate Citizenship*. It provides international analysis of the main trends in 2002 and suggestions for the future. Lifeworth, an agency working in the field of corporate responsibility, produced this publication with funding from Future Considerations, Greenleaf Publishing and the Nike Corporate Responsibility Team. A disclaimer points out that the sponsors had no input concerning content. The site allows users to browse, download a PDF copy, and comment on the topics presented. The 2001 annual review can also be accessed at this site.

Egyptian pollution prevention www.eeaa.gov.eg/ippg

The Egyptian Environmental Affairs Agency has established an "Industrial Pollution Prevention Gateway" providing links to other sites and documents on the Internet related to pollution prevention. Areas covered include international organizations, cleaner production tools, electronic journals, case studies and guides, and chemicals. There are links to a number of listserve forums.

THE UNEP DIVISION OF TECHNOLOGY, INDUSTRY AND ECONOMICS

Current uses and development of natural resources, technologies and production processes, as well as urbanization patterns, have negative effects on human health and the environment. This is illustrated by unsustainable use of water, land and energy, air and water pollution, persistent and toxic bio-accumulative chemicals in the food chain, and other industry-related problems.

To have a healthy environment, we need to change how we produce and consume goods and services. This change involves revising and developing economic policies and trade practices, so as to integrate environmental issues in the planning and assessment processes.

UNEP's Division of Technology, Industry and Economics (UNEP DTIE) was created in 1998 to help decision-makers in governments, local authorities and industry develop and adopt policies and practices that:

- are cleaner and safer;
- use natural resources efficiently;
- ensure adequate management of chemicals;
- incorporate environmental costs;
- reduce pollution and risks for humans and the environment.

UNEP DTIE, whose main office is in Paris, is composed of:

◆ **The International Environmental Technology Centre (Osaka)**, which promotes the adoption and use of environmentally sound technologies, with a focus on the environmental management of cities and freshwater basins, in developing countries and countries in transition.

◆ **The Production and Consumption Unit (Paris)**, which fosters the development of cleaner and safer production and consumption patterns that lead to increased efficiency in the use of natural resources and reductions in pollution.

◆ **The Chemicals Unit (Geneva)**, which promotes sustainable development by catalysing global actions and building capacities for the sound management of chemicals and the implementation of chemical safety worldwide, with a priority on Persistent Organic Pollutants (POPs) and Prior Informed Consent (PIC, jointly with FAO).

◆ **The Energy and Ozone Action Unit (Paris)**, which supports the phase-out of ozone depleting substances in developing countries and countries with economies in transition, and promotes good management practices and use of energy, with a focus on atmospheric impacts. The UNEP/RISØ Collaborating Centre on Energy and Environment supports the work of the Unit.

◆ **The Economics and Trade Unit (Geneva)**, which promotes the use and application of assessment and incentive tools for environmental policy, and helps improve the understanding of linkages between trade and environment and the role of financial institutions in promoting sustainable development.

UNEP

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75739 Paris Cedex 15, France

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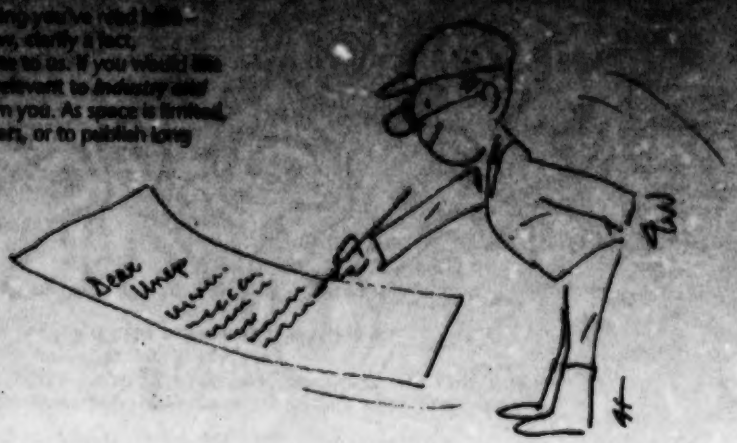

Industry and Environment

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For over 20 years, the quarterly *Industry and Environment* has provided a forum for exchanging information and experience. Articles are contributed by industry managers, government officials, researchers and others active in the field of sustainable industrial development. Besides reporting on developments of broad international interest, each issue focuses on a particular theme. The themes of recent issues have included the agri-food industry, consumption patterns, urban environmental management, sustainable energy, and mining and sustainable development. Recent issues and archives are available on-line at www.uneptie.org/media/review/ie_home.htm.

The next issue of *Industry and Environment* will focus on the construction industry.

Industry and Environment is an English language publication, but it often includes articles in French and Spanish. All contributed articles are accompanied by summaries in English, French and Spanish.

The review is also published in Chinese.
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